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SUPPLEMENT No. 7—1954

RELATING TO THE

PERSIAN GULF PILOT

NINTH EDITION, 1942

CORRECTED TO 12th AUGUST, 1954.

**Whenever reference is made to the Pilot,
this Supplement must be consulted**

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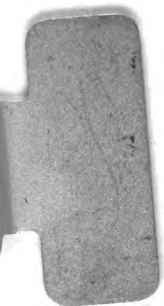
LONDON

PUBLISHED by the HYDROGRAPHIC DEPARTMENT, ADMIRALTY

To be obtained from the
Agents for the Sale of Admiralty Charts

1954

Gratis to purchasers of Persian Gulf Pilot



ADVERTISEMENT TO SUPPLEMENT No. 7.

This Supplement has been compiled by Commander F. N. Shearme, R.N., from information received in the Hydrographic Department of the Admiralty since the publication, in 1942, of the ninth edition of the Persian Gulf Pilot.

The Supplement should be retained intact for reference ; its existence is to be noted on the tabular form inside the cover of the Pilot.

Whenever reference is made to the Pilot, this Supplement must be consulted.

Attention is called to the portions which differ from the *previous Supplement*, which are indicated in the following manner :—

Additions and alterations are enclosed by broad square brackets in heavy type.

Deletions are indicated by a heavy horizontal line.

Supplement No. 6, 1953, is hereby cancelled and all information affecting the Persian Gulf Pilot, contained in Notices to Mariners, up to and including No. 1822 of 1954, has been embodied in this Supplement ; for temporary and preliminary Notices to Mariners affecting this edition, the list of temporary and preliminary Notices to Mariners in force, published monthly in the complete weekly edition of the Admiralty Notices to Mariners, should be consulted.

A. DAY,
Vice-Admiral,
Hydrographer of the Navy.

*Hydrographic Department,
Admiralty, London,
12th August, 1954.*

relating to the

PERSIAN GULF PILOT

NINTH EDITION, 1942

(Corrected to 12th August 1954.)

Front fly-leaf.—At the foot of the page *insert* :—

Mariners should always consult Admiralty Notice to Mariners No. 1 of the current year for the latest information on the subjects mentioned above.

Page facing the front fly-leaf.—Caution at the foot of page ; For “ Nos. 1, 4 and 7,” read “ Nos. 1-18 ”

Title page.—Line 8 : *Delete* “ ALL BEARINGS ARE TRUE ”

CAUTION *To face page ii.*—First paragraph : For “ ALL TRUE ” read “ REFERRED TO THE TRUE COMPASS ”

Fourth paragraph : For “ NAUTICAL MILES ” read “ SEA-MILES ”

Fifth paragraph : *After* “ EQUAL TO ” *insert* “ ONE TENTH OF A SEA-MILE. IT IS OFTEN ACCEPTED AS BEING ”

Page iii.—ADVERTISEMENT.—Second paragraph, line 3 : *Delete* “ from ” to “ sources ”

Third paragraph, line 4 : For “ nautical miles ” read “ sea-miles ”

Fifth paragraph.—Lines 2-3 : For “ Admiralty, London, S.W.1 ” read “ Hydrographic Supplies Establishment, Creechbarrow House, Taunton, Somerset ”

Page vii.—List of views : *Below* “ Masandam peninsula from north-eastward ” *insert* :—

Quoin islands from southward and westward . . . facing 95

Below “ Coast in the vicinity of Ayānāt village from south-south-westward ” *insert* :—

Town of Rams from westward 159

Jazīrat al Hamra from north-eastward 160

Village of Al Hamriya 161

Below “ Two views of Jazīrat al Yās ” *insert* :—

Jazīrat Dalma 177

Delete “ Shaat al ‘Arab control vessel 236 ”

Page viii.—*The following additions to the Glossary should be inserted in the appropriate places :—*

Āb-rāh [P]	.	.	.	.	Watercourse ; aqueduct
'Ain [A]	.	.	.	.	Source
'Alāmat [A]	.	.	.	.	Sign ; signal
'Arabāt [A]	.	.	.	.	Pontoon bridge
Bahr [A]	.	.	.	.	Sea
Band [P]	.	.	.	.	Embankment ; dam
Bisim [P]	.	.	.	.	Radio
Burj [A]	.	.	.	.	Tower ; turret
Chigā [P]	.	.	.	.	Hill
Dar [P]	.	.	.	.	Channel
Daryā [P]	.	.	.	.	Sea ; river
Deh [P]	.	.	.	.	Village
Dehān [P]	.	.	.	.	River mouth
Fānūs [P]	.	.	.	.	Lighthouse
Fārsi [P]	.	.	.	.	Persian
Forūd-gāh [P]	.	.	.	.	Aerodrome
Gassar [A]	.	.	.	.	Coral islet or coral head, mostly covered ; some uncover at low water.
Gharb [A]	.	.	.	.	West
Gil [P]	.	.	.	.	Mud
Hidd [A]	.	.	.	.	A sand spit, usually covered at high water.
Kalāt [P]	.	.	.	.	Castle ; mountain fortress
Kalleh [P]	.	.	.	.	Summit
Khalij [A]	.	.	.	.	Gulf, bay ; estuary
Khourah [A]	.	.	.	.	A deep spot surrounded by shoals.
Langar-gāh [P]	.	.	.	.	Anchorage ; harbour
Maghrib [A]	.	.	.	.	West
Maidān-i-tayyārāt [A]	.	.	.	.	Aerodrome
Marjān [A]	.	.	.	.	Coral
Mashriq [A]	.	.	.	.	East
Nahr [A]	.	.	.	.	Stream, river ; canal
Pārsi [P]	.	.	.	.	Persian
Pul [P]	.	.	.	.	Bridge ; viaduct
Qariyeh [A]	.	.	.	.	Village
Qulleh [A]	.	.	.	.	Summit
Rig [P]	.	.	.	.	Sand
Rug [A]	.	.	.	.	Is shallow.
Rüstā [P]	.	.	.	.	Village
Sadd [A]	.	.	.	.	Dam, dyke ; obstruction
Sharq [A]	.	.	.	.	East
Sitūn [P]	.	.	.	.	Pillar, column
Tangeh [P]	.	.	.	.	Strait, isthmus
Zāhir [A]	.	.	.	.	Conspicuous

The following amendments should be made to the Glossary :—

Fasht: For " Rocky reef " read " Coral shoal "

For " Halat " read " Halah "

For " Heir " read " Hair "

For " Najwa [A] . Shoal. " read " Naiwah [A] . Shoal surrounded by deep water ; it could be a pearl bank or a coral shoal. "

Page xiii.—Line 20 : *Delete* " Chief " to " Supplies " and *substitute* " Hydrographic Supplies Establishment "

Page xiv.—Line 2 : *After* " all " *insert* " old "
Lines 10-11 : *Delete* " Chief " to " Supplies " and *substitute* " Hydrographic Supplies Establishment "

Page xvi.—Lines 1-2, 32 and 51 : *Delete* " Chief " to " Supplies "
and *substitute* " Hydrographic Supplies Establishment "
Lines 7 and 10 : *For* " Wireless " *read* " Radio "

Page xvii.—Line 10 : *For* " parts " *read* " volumes "

Line 12 : *For* " part." *read* " volume."

Lines 14-25 : *Delete* and *substitute* :—

The volumes are published annually at the rate of one volume per month commencing with Volume 1 in January ending with Volume 12 in December. Supplements to these volumes are not issued.

Each volume is issued with an inscription on its cover and title page stating the date to which the volume has been corrected, which is approximately six weeks prior to the date of its issue. Permanent and temporary corrections or additions to each volume which may occur between the date of correction and date of issue, are promulgated by Section III of Admiralty Notices to Mariners.

Amendments.—Important amendments are promulgated in Admiralty Notices to Mariners. In Section III of each Weekly Complete Edition of the Notices are found all additions and alterations made to Lights, Fog signals and Visual Time signals by the Notices issued during the week affected ; certain other additions and alterations are also included in Section III, which, though not of sufficient importance to necessitate the issue of a Notice to Mariners, are of use to the seaman. Section III contains similar information but of a temporary character.

All temporary information is now incorporated in Admiralty Lists of Lights. The word "**Temporary**" is printed against such information in heavy type in Column 10.

Corrections to the Light Lists should be made in pencil, or extracted from Section III and pasted into the appropriate volume.

Lines 27-28 : *Delete* " Chief " to " Supplies " and *substitute* " Hydrographic Supplies Establishment "

Line 30 : *Delete* " Supplements " to " and "

Line 55 : *For* " IV " *read* " VI "

Page xviii.—Line 1 : *For* " IV." *read* " VI "

Lines 3-4 : *Delete* " Chief " to " Supplies " and *substitute* " Hydrographic Supplies Establishment "

Page xxi.—Line 40 : *For* " part " *read* " volume "

Page xxii.—Lines 34-35 : *Delete* " wireless " to " from " and *substitute* " radiobeacons situated at "

Line 38 : *For* " signal on a wireless " *read* " position on a radio "

Line 40 : *For* " wireless " *read* " radio "

Line 41 : *For* " these signals " *read* " the light-vessel "

Page xxiv.—Line 41 : *For " useful " read " usual "*

Page xxv.—Lines 7-8 : *For " these Tables " read " it "*

Line 20 : *For " daylight " read " daybreak "*

Page xxvi.—Line 12 : *Delete and substitute :—*

" Magnetic values shown on Admiralty charts are for the 1st July of the year mentioned.

Local magnetic anomaly affecting the compass on board ship.—The "

Line 13 : *For " disturbance " read " anomaly "*

Lines 32-33 : *Delete " of " to " disturbance," and substitute " in which a local magnetic anomaly exists,"*

Page xxviii.—Line 38 : *For " track " read " path "*

Page xxix.—Lines 16-18 : *Delete " ; and in " to " heave to "*

Line 23 : *For " course " read " path "*

Line 27 : *Add :—*It can, however, be assumed that the storm is not travelling in a southerly direction if in the northern hemisphere, or in a northerly direction if in the southern hemisphere ; and, if in a lower latitude than 15° , its path is most unlikely to have an easterly component, except in the South Pacific eastward of the 180th meridian.

Line 31 : *For " check of " read " check on "*

After line 48 insert :—

19. Sometimes a tropical storm moves so slowly that a vessel, if ahead of it, can easily outpace it or, if astern of it, can overtake it.

Since, however, she is unlikely to feel seriously the effects of a storm known to be in the vicinity so long as the barometer does not fall below 1005 millibars, it is recommended that frequent readings should be made and that the vessel should continue on her course until the barometer falls to 1005 millibars or the wind increases to force 6. If and when either of these events occurs, she should act as directed in the preceding paragraphs until the barometer has risen above 1005 millibars and the wind decreased to force 6 or less. Should it be certain, however, that the vessel is behind the storm, or in the navigable semicircle, it will evidently be sufficient to alter course away from the centre.

Line 49 : *For " 19 " read " 20 "*

Line 53 : *For " 20 " read " 21 "*

Page xxx.—Line 1 : *For " 21 " read " 22 "*

Line 2 : *For " wireless " read " radio "*

Chart Index S.D.63A, facing page 1.—Chart 2830 ; *Amend* western limit to Long. $50^{\circ} 52' E$.

Insert new charts as follows :—

Chart No. 1268 between

Lats. $29^{\circ} 40' N$. and $30^{\circ} 31' N$. and Longs. $48^{\circ} 53' E$. and $49^{\circ} 32' E$.

Chart No. 2837 between

Lats. $23^{\circ} 54' N$. and $27^{\circ} 55' N$. and Longs. $50^{\circ} 37' E$. and $57^{\circ} 22' E$.

Chart No. 2847 between

Lats. $24^{\circ} 32' N$. and $30^{\circ} 32' N$. and Longs. $47^{\circ} 49' E$. and $52^{\circ} 15' E$.

Chart Index S.D.63A.—continued.

Chart 2851 between

Lats. 26° 25' N. and the southern limit of the Index chart and
between Longs. 56° 12' E. and 60° 38' E.

Chart No. 3787 between

Lats. 24° 49' N. and 25° 21' N. and Longs. 51° 31' E. and 51° 50' E.

Chart No. 3792 between

Lats. 26° 08' N. and 26° 25' N. and Longs. 50° 25' E. and 50° 54' E.

Chart No. 3950 between

Lats. 24° 41' N. and 26° 01' N. and Longs. 51° 28' E. and 52° 26' E.

Chart No. 3960 between

Lats. 28° 05' N. and 28° 20' N. and Longs. 48° 36' E. and 48° 59' E.

Delete charts 10^c, 2837A and 2837B.

Lat. 26° 50' N., Long. 55° 10' E.—*Lingeh*: For “2837^A” read
“3517”

Lat. 27° 10' N., Long. 55° 10' E.—*Charak*: For “2837^A” read
“3517”

Lat. 27° 20' N., Long. 54° 00' E.—*Chiru*: For “2837^A” read
“3517”

Lat. 26° 30' N., Long. 53° 00' E.—For “2837^{A*} Qais” read
“3517* Qais”

Lat. 26° 50' N., Long. 52° 30' E.—For “Sheikh Shu'aib 2837^B”
read “3517* Shaikh Shu'aib”

Lat. 27° 40' N., Long. 54° 00' E.—*Mugam*: For “2837^A” read
“3517”

Lat. 25° 30' N., Long. 52° 50' E.—*Halul I.*: For “2837^B” read
“3517”

Lat. 22° 30' N., Long. 59° 00' E.—For “Khōr al Hajr” read “*3518
Khōr al Hajr”

Lat. 23° 00' N., Long. 60° 10' E.—*Khōr Jarama* and *Sur*: For
“10^c” read “3518”

Lat. 23° 30' N., Long. 58° 00' E.—*Bandar Khairan*, *Bandar Jissah*
and *Dar Sait*: For “10^c” read “3518”

Lat. 25° 00' N., Long. 55° 45' E.—*Khor Fakhan*: For “2837^A”
read “3518”

Lat. 27° 06' N., Long. 56° 28' E.—*Insert*:—3599* *Jazīrat Hormuz*

Lat. 26° 58' N., Long. 56° 17' E.—*Insert*:—3599* *Qishm*

Lat. 24° 50' N., Long. 54° 46' E.—*insert*:—3705* *Khōr Al Ghanādha*

Lat. 24° 31' N., Long. 45° 32' E.—*Insert*:—3507* *Khōr Essādiyāt*

Lat. 24° 10' N., Long. 52° 35' E.—*Insert*:—3705* *Jabal Dhanna*

Lat. 25° 15' N., Long. 50° 15' E.—*Insert*:—3789* *Approach to Al
Kobar*

Lat. 26° 15' N., Long. 51° 30' E.—For “Khor Kaliya 3792” read
“Khōr Kaliya & Sitra”

Lat. 26° 15' N., Long. 50° 00' E.—For “*3792 Bahrein Hr” read
“*3789 Bahrein Hr”

Lat. 26° 30' N., Long. 49° 00' E.—For “Ras-at-Tannura” read
“Approaches to Dammām Port”

In Lat. 25° 36' N., Long. 55° 34' E., insert “3705* Umm al Quaiwain

In Lat. 25° 16' N., Long. 55° 18' E., insert “3705* Dibai” and
delete “Dabei 3791*”

In Lat. 24° 59' N., Long. 55° 01' E., insert “3705* Jebajib bay”

In Lat. 24° 29' N., Long. 54° 19' E., insert “3705* Abu Dhabi”
and delete “Abu Dhabi 2837a”

Chart Index S.D.63A.—continued.

[Chart 1223 between

Lats. 28° 35' N. and 28° 47' N. and Longs. 48° 21' E. and 48° 53' E.

Lats. 29° 01' N. and 29° 06' N. and Longs. 48° 07' E. and 48° 11' E.]

Chart Index S.D.63B, facing page 1.—Insert new charts as follows :—

Chart No. 1268 between

Lats. 29° 40' N. and 30° 31' N. and Longs. 48° 53' E. and 49° 00' E.

Chart No. 2847 between

Lat. 30° 32' N. and the southern border of the Index chart and between Long. 47° 49' E. and the eastern border of the Index chart.

Pink slip facing page 1.—First paragraph, line 3: For “ Part VI ” read “ Volume 6 ”

Last paragraph.—Line 1: For “ W/T ” read “ radio ”

Line 2: For “ fog signals, and ” read “ radiobeacons and radio ”

Page 1.—Line 20: Delete “ western ” to “ India ” and substitute “ Hab river (page 68) ”

Page 4.—Line 1: After “ India ” insert “ and Pakistan ”

Page 7.—Lines 43-45: Delete “ The Governments ” to “ Department.” and substitute :—The Government of Great Britain is represented in Muscat by a Political Agent.

Page 9.—Line 45: For “ This ” read “ Baluchistan is a part of West Pakistan. Makrān ”

Lines 52-53: Delete “ Kalāt ; ” to “ Agent.” and substitute “ Kalāt.”

Lines 54-55: Delete “ between ” to “ India ; ” and substitute “ eastward of Kalāt ; ”

Page 10.—Lines 1-2: Delete “ Jam,” to “ Kalāt.” and substitute “ Jam.”

Page 11.—After line 39 insert :—

A vessel reported that, in April 1946, between positions about 5 miles westward of the southern island of the Salamah wa Bina-tabah group and 3 miles northward of Jezirat Tunb (page 116), with a smooth sea and no wind, westerly-going current was experienced of $3\frac{1}{4}$ knots.

Page 14.—Line 1: For “ on ” read “ or ”

After line 30 insert :—

In addition to the above, urgency and safety signals from aircraft may also be made by radiotelegraphy and radiotelephony, as prescribed in the Admiralty List of Radio Signals.

After line 33 insert :—

Firing danger areas.—Firing and bombing practices take place in a great number of areas off the coasts of Great Britain and Eire, and the number of areas in the waters of Commonwealth, Dominion, Colonial and Foreign Governments has recently increased.

Page 14 continued.

In view of the responsibility of range authorities for avoiding accidents, limits of practice areas will not be shown on charts and descriptions of areas will not appear in the Sailing Directions. Such range beacons lights and marking buoys as may be of assistance to the Mariner, or targets which might be a danger to navigation will, however, be shown on charts and when appropriate mentioned in Sailing Directions.

Lights will be mentioned in the Admiralty Lists of Lights.

The principal types of practices carried out are :—

(a) *Bombing practice from aircraft.*

Warning signals usually shown.

(b) *Air to air, and air to sea or ground firing.*

The former is carried out by aircraft at a large white or red sleeve or flag towed by another aircraft moving on a steady course. The latter is carried out from aircraft at towed or stationary targets on sea or land, the firing taking place to seaward in the case of those on land.

As a general rule, warning signals are shown when the targets are stationary, but not when towed targets are used.

(c) *Anti-aircraft firing.*

This may be from A.A. guns or machine guns at a target towed by aircraft as in (b) above, or at balloons or kites. Practice may take place from shore batteries or ships.

Warning signals as a rule are shown from shore batteries but not from ships.

(d) *Firing from shore batteries or ships at sea at fixed or floating targets.*

Warning signals usually shown as in (c).

Warning signals, when given, usually consist of red flags by day and *red fixed or red flashing* lights at night. The absence of any such signal cannot, however, be accepted as evidence that a practice area does not exist. Warning signals are shown from shortly before practice commences until it ceases.

CAUTION.—A vessel may be aware of the existence of a practice area from Local Notices to Mariners or similar method of promulgation and by observing the warning signals or the practice.

She should, whenever possible, avoid passing through an area in which a practice is in progress, but if compelled to do so should endeavour to clear it at the earliest possible moment.

If during anti-aircraft, air to air, sea or ground firing practice, projectiles or splinters are observed to be falling near a vessel, she should maintain her course and speed and all persons on board should take cover. Every practicable precaution, however, will be taken by the Authority in charge of the practice to avoid risk of damage from falling shell splinters, bullets, etc., to vessels and all on board them within the area.

The following provisions will be applied generally to firing danger areas established, or to be established, in the waters of Commonwealth, Dominion, Colonial and Foreign governments.

For the latest information on this subject, Admiralty Notice to Mariners No. 5 of the current year should be consulted.

Page 14 continued.

Air Lights.—Mariners are warned that lights (with definite characteristics), which are not ordinary navigational aids, may be exhibited for the use of aircraft from structures near the coasts described in this volume.

These lights are often of great luminous power and elevation and may be the first lights or looms of lights sighted when making a land-fall at night ; they normally have the following characteristics :—

(a) *Flashing white* (revolving beam type).

(These lights are usually screened from seaward but their looms may be visible).

or (b) *Alternating flashing white and green* (revolving beam type).

or (c) *Flashing two letter groups* in the Morse Code, in *red* or *green*.

(Although the groups made by these lights may have definite meanings in the International Code of Signals, their signification is to be disregarded ; the fact that they are *red* or *green* in colour, and flash with mechanical regularity, should prevent their being mistaken for signals from shore signal stations or ships).

Air lights which appear likely to be visible from seaward will be shown on charts and described in the Admiralty List of Lights. As they are subject to changes of which prompt notification to the mariner may not always be possible, care should be taken that they are not confused with marine navigational aids.

Page 16.—*After line 14 insert :—*

Caution.—Cautionary notes appear on many charts, calling attention to areas in which there are submarine cables ; these areas are indicated by pecked lines on the charts.

Every care should be taken to avoid anchoring in such areas, even though there may be no specific prohibition against doing so, in view of the serious interference with communications which results from damage to submarine cables.

Equal care should be taken wherever the symbol for a submarine cable (a wavy line) is shown on a chart.

Danger involved in cutting a submarine cable to clear anchors or fishing gear.—In the event of any vessel fouling a submarine cable in these areas, every effort should be made to clear the anchor or gear by normal methods ; should these methods fail, the anchor or gear should be slipped and abandoned *without attempting to cut the cable*. *High voltages are, or may be, fed into certain submarine cables ; serious risk exists of loss of life due to electric shock, or at least of severe burns, if any attempt to cut the cable is made.* No claim in respect of injury or damage sustained through such interference with a submarine cable will be entertained.

Compensation for anchors or fishing gear sacrificed in order to avoid injuring a submarine cable can be claimed under the Submarine Telegraph Act, 1885 (Schedule of Submarine Telegraphs Convention, Article VII).

Single ships approaching Squadrons or Aircraft Carriers.—**Caution.**—The attention of shipowners and mariners is drawn to the danger to all concerned which is caused by single vessels approaching a squadron of warships, or merchant vessels in convoy, so closely as to

Page 16 continued.

involve risk of collision, or attempting to pass ahead of or through such a squadron or convoy.

Mariners are therefore warned that single vessels should adopt early measures to keep out of the way of a squadron or convoy.

The fact that it is the duty of a single vessel to keep out of the way of a squadron or convoy does not entitle vessels so sailing in company to proceed without regard to the movements of the single vessel. Vessels sailing in a squadron or convoy should accordingly keep a careful watch on the movements of any single vessel approaching, and be ready, in case the single vessel does not keep out of the way, to take such action as will best aid to avert collision.

Attention is also drawn to the uncertainty of the movements of aircraft carriers, which must usually turn into the wind when aircraft are taking off or landing.

Furthermore, mariners should realise that at night Her Majesty's aircraft carriers whether engaged on night flying operations or not, may exhibit navigation lights (except the overtaking light) from the island structure only. This structure is always on the starboard side. This, in effect, means that the bow lights do not indicate the full beam of the ship; the starboard bow light is on the starboard side, but the port bow light may be as much as 100 feet (30^m5) from the port side.

For further information on this subject, Admiralty Notice to Mariners No. 7 of the current year should be consulted.

British submarines.—British vessels display flags HP of the International Code of Signals to denote that submarines, which may be submerged, are in the vicinity. Vessels are cautioned to steer so as to give a wide berth to any vessel displaying this signal. If from any cause it is necessary to approach her, vessels should proceed at slow speed until warning is given of the danger zone by flags, semaphore or megaphone, etc., a good look-out being kept meanwhile for submarines, whose presence may be indicated only by their periscopes showing above water.

A submarine, submerged at a depth too great to show her periscope, may sometimes indicate her position by releasing a " smoke candle ", which gives off a considerable volume of smoke on first reaching the surface. Her position may sometimes be indicated by red and white or red and yellow buoys or floats, which tow on the surface close astern.

It must not be inferred from the above that submarines exercise only when in company with escorting vessels.

By virtue of the construction of a submarine the only position from which navigation lights can be exhibited is the conning tower of the vessel and this is approximately in the centre of her length.

The single steaming light, bow lights and overtaking light are necessarily low down and closely spaced and give no indication of the submarine's length nor of her exact course or change of course. They may be mistaken for the lights of a very much smaller vessel of the coastal type.

Lines 50-54 : *Delete and substitute :—*

Standard and Summer Times.—All information regarding Standard Times and Summer Times will be found in the Admiralty List of Radio Signals, Vol. **[V]**.

Page 17.—Line 10: For “W/T” and “W/T” read “Radio” and “radio”

Line 12: For “and Basra” read “Abadan, Fao and Ma’qil (Basrah Margil in List)”

Line 13: For “Bureau” read “General Secretariat”

Line 15: For “W/T” read “Radio”

[Page 22.—After line 48 insert :—

Radio information.—Full information concerning storm warnings and other meteorological information broadcast by radio is given in the Admiralty List of Radio Signals, Volumes III and V.]

Page 27.—Line 42: Delete “western” to “India” and substitute “vicinity of Karachi”

Page 31.—Line 44: For “Persian and Arabian” read “Arabian and Persian”

Page 45.—Line 1: Delete and substitute :—

Chart 2851.

After line 8 insert :—

Charts 2851 and 3518, plan of Khōr Al Hajr.

Line 9: For “22° 32’” read “22° 30’”

Page 46.—Line 1: Delete and substitute :—

Charts 2851 and 3518, plans of Khōr Al Hajr and Khōr Al Jarāma.

Line 14: For “22° 32’” read “22° 30’”

After line 16 insert :—

Chart 3518, plan of Khōr Al Hajr.

Line 18: After “boats” insert “, but it is exposed to northerly winds, which at times blow strongly, and the holding ground is reported to be bad”

Line 29: Delete and substitute :—

Chart 3518, plan of Khōr Al Jarāma.

Page 47.—Line 1: Delete and substitute :—

Chart 3518, plan of Khōr Al Jarāma.

Line 15: For “22° 33’” read “22° 30’”

Line 34: Delete and substitute :—

Chart 2851.

Line 36: Delete “(Sherh)”

Line 39: For “10°” read “3518”

Line 45: Delete “(Seneisala)”

Line 46: For “near the coast” read “6 cables inland”

Lines 50-54: Delete “A” to “south-south-” and substitute :—

There are numerous towers in the vicinity, some of which are conspicuous; their positions can best be seen on the chart.

Page 48.—Lines 1-4: Delete and substitute :—

Charts 10° and 3518, plan of Sur anchorage.

Line 29: Delete and substitute :—

Chart 2851.

Line 54: Delete “(Taiwa)”

Page 49.—Line 1 : *Delete and substitute :—*
Chart 2851.

Line 7 : *Delete* “ (Skabáb) ”

Line 14 : *For* “ 59° 12' ” *read* “ 59° 13' ”

Lines 29 and 49 : *Delete* “ (Dawud) ”

Line 37 : *Delete* “ (Quryat) ”

Lines 43-44 and 51-52 : *Delete* “ views ” to “ 2837a ” and *substitute* “ view on chart 38 ”

Page 50.—Lines 1 and 32 : *Delete and substitute :—*
Chart 2851.

Line 8 : *Delete* “ (Thibáb) ”

Line 19 : *For* “ 58° 55' ” *read* “ 58° 50' ”

Page 51.—Lines 7 and 49 : *For* “ 10° ” *read* “ 3518 ”

Page 52.—Line 1 : *For* “ 10° ” *read* “ 3518 ”

Line 17 : *Delete and substitute :—*

Chart 2851.

Line 23 : *Delete* “ (Saddle hill) ”

Line 29 : *For* “ on chart 2837a ” *read* “ A on chart 2851 ”

Lines 35 and 52 : *For* “ 10° ” *read* “ 2851 ”

Page 53.—Line 1 : *For* “ 10° ” *read* “ 2851 ”

Line 22 : *For* “ 2837a ” *read* “ 2851 ”

Line 37 : *After* “ fort,” *insert* “ which, in 1943, was in ruins,”

Page 54.—Line 7 : *After* “ sheds ” *insert* “ , which, in 1943, were in ruins,”

Line 18 : *Delete* “ **Buoys.**— ”

Lines 27-29 : *Delete.*

Line 45 : *Add* :—The white-topped pinnacle rock mentioned above was reported, in 1946, to be difficult to identify.

Lines 52-54 : *Delete.*

Page 55.—Line 24 : *For* “ has ” *read* “ had ”

Line 25 : *For* “ 12,700 ” *read* “ 22,000, in 1948 ”

Lines 29-30 : *Delete.*

Page 56.—Line 39 : *For* “ 10° ” *read* “ 2851 ”

Line 45 : *Delete and substitute :—*

Chart 3518, plan of Dārsait anchorage.

Page 57.—Line 1 : *Delete and substitute :—*

Chart 3518, plan of Dārsait anchorage.

Line 14 : *Delete and substitute :—*

Chart 2851.

Line 23 : *For* “ on chart 2837a ” *read* “ B on chart 2851 ”

Line 41 : *Delete and substitute :—*

Charts 2837 and 2851.

Line 44 : *Delete* “ (‘Umail) ”

Page 58.—Line 1 : *Delete and substitute :—*

Charts 2837 and 2851.

Line 43 : *Delete and substitute :—*

Chart 2851.

Page 59.—Line 1 : *Delete and substitute :—*

Chart 2851.

Line 18 : *For " 6½ to 8 miles " read " 7½ to 9 miles "*

Lines 20-21 : *Delete*

Line 23 : *For " about 25 feet (7^m6) " read " 30 feet (9^m1) "*

Lines 30-31 : *Delete " The islets " to " high," and substitute " The two largest islets of this group are 53 and 83 feet (16^m2 and 25^m3) high, respectively,"*

Line 43 : *For " 3½ " read " 4 "*

Line 45 : *For " 107 feet (32^m6) " read " 100 feet (30^m5) "*

Line 51 : *For " 23° 49' N." read " 23° 46' N."*

Lines 52-53 : *Delete " is a " to " islet." and substitute " is a rock, with a depth of less than 6 feet (1^m8) over it."*

Page 60.—Line 1 : *Delete and substitute :—*

Chart 2851.

Lines 30-31 : *Delete.*

Line 34 : *Delete " (see " to " (85^m3) " and substitute " ; it is 271 feet (82^m6) "*

Line 39 : *For " 150 " and " 45^m7 " read " 121 " and " 36^m8 "*

Page 61.—Line 1 : *Delete and substitute :—*

Chart 2851.

Line 42 : *Delete and substitute :—*

Chart 2837.

Page 62.—Line 1 : *Delete and substitute :—*

Chart 2837.

Line 51 : *For " on chart 2837a " read " C on chart 2851 "*

Page 63.—Line 1 : *Delete and substitute :—*

Chart 2837.

Line 8 : *Delete " (Al Fasikah) "*

Line 24 : *For " 2837a " read " 2837 "*

Page 64.—Line 1 : *Delete and substitute :—*

Chart 2830.

Line 22 : *Delete " (Shamailiyah) "*

Line 25 : *Delete " (Dibah) "*

Page 65.—Line 1 : *Delete and substitute :—*

Chart 2837.

Line 24 : *Delete and substitute :—*

Chart 3518, plan of Khōr Al Fākkān.

Line 45 : *For " A conspicuous tower " read " A ruined tower which, in 1948, was a prominent mark "*

Lines 47-48 : *Delete and substitute :—*

The natives, numbering about 2,000, in 1948, are nominally subjects of the Sheik of Kalba, and were very friendly when visited by H.M.S. *Wren*, in that year.

Small quantities of fruit and fresh vegetables may be obtained from a garden in rear of the village.

Page 66.—Line 15 : *Delete and substitute :—*

“ **Dôhat Dibba.**—**Anchorage.**—Dohat Dibba (Dibah) is entered between ”

Page 67.—Line 3 : *Delete and substitute :—*

“ the mouth of the Hab river (page 68) north- ”

After line 7 insert :—

Caution.—Vessels navigating along the Makran coast between longitudes $61^{\circ} 10' E.$ and $66^{\circ} 00' E.$ should keep outside the 20-fathom (36^m6) line, and if obliged to close the land should do so with caution, sounding continuously. Charted depths are reported to be unreliable, owing to volcanic disturbances, in 1945.

After line 8 insert :—

Submarine exercise area.—A submarine exercise area has been established in a rectangular area the eastern side of which is defined, for all practical purposes, by a line drawn between positions $11\frac{1}{2}$ and $26\frac{1}{2}$ miles 151° from Cape Monze ; the area extends about $8\frac{1}{2}$ miles west-south-westward from this line. See page 16.

Page 68.—

Page 69.—Line 27 : *Delete.*

Line 53 : *Delete.*

Page 70.—*After line 52 insert :—*

A small island, composed of volcanic mud, was observed, in December, 1945, about 3 miles south-westward of Ras Chahârdam.

In February, 1947, this island had submerged.

Page 71.—Line 24 : *After “ sandy ” insert “ and fronted by low sand hills, of from 10 to 45 feet (3^m0 to 13^m7) in height, on which are tufts of grass,”*

Line 34 : *For “ about 600 feet (182^m9) ” read “ 190 feet (57^m9) ”*

Line 35 : *Add :—*In certain lights this hill appears to be dark, and with strong winds may be obscured by sand storms.

A group of about 12 small white mud volcanoes, of which the highest is 105 feet (32^m0) high, is situated about 2 miles eastward and a single mud volcano, 65 feet (19^m8) high, about the same distance westward of Chandra kūp.

After line 39 insert :—

Chart 38, plan of Omâra East bay.

Line 40 : *After “ Ormâra.— ” insert “ Dangers.— ” and for “ 1,400 feet (426^m7) ” read “ 1,575 feet (480^m1) ”*

Line 44 : *For “ with great difficulty.” read “ from southward where several valleys break the line of cliffs.”*

Line 46 : *For “ 5 ” read “ $3\frac{1}{2}$ ”*

Line 47 : *For “ high sand hills ” read “ sand dunes of from 20 to 60 feet (6^m1 to 18^m3) in height, which change shape in strong winds ”*

After line 50 insert :—

A 3-fathom (5^m5) patch lies about half a mile south-eastward of the eastern extreme of Ras Ormâra.

Two narrow rocky ridges, named Rodrigues shoal, with depths of from 3 to $4\frac{1}{2}$ fathoms (5^m5 to 8^m2) over them and a gutter between them, lie from $1\frac{1}{4}$ to $4\frac{1}{4}$ miles eastward of Ras Ormâra, and, in 1948.,

Page 71 continued.

were reported to extend about 6 miles farther eastward, with depths of from 5 to 7 fathoms (9^m1 to 12^m8) over them. A passage between Rodrigues shoal and Ras Ormāra, about one mile wide, has been swept to a depth of 4½ fathoms (8^m2).

Line 54: *Delete and substitute* :—

Ormāra is the centre of a shark fishing industry.

Page 72.—Line 1: *After "Chart 38" insert " , plan of Ormāra East bay "*

Lines 3-13: *Delete* " it has " to " 37' E.). " and *substitute* " the depths shoal regularly in the bay, which has a bottom of sand and mud except near the cliffs where there are rocks. Anchorage may be obtained, in a depth of 4 fathoms (7^m3), about 3½ miles from the village, with the eastern extremity of Ras Ormāra bearing 177° and the conspicuous red-roofed radio office, about one mile westward of the village, bearing 249°; light draught vessels can anchor in a depth of 3 fathoms (5^m5) closer in. The bank off the south-western part of the bay dries for a distance of nearly a mile offshore; the most suitable place for landing is near the southern end of the sand dunes northward of the village, and about 6 cables northward of a small white dome; here, boats drawing 5 feet (1^m5) can approach to within half a cable of the shore at half tide.

Chandra kūp, bearing 345°, leads through the swept passage between Ras Ormāra and the rocky ridges, eastward, in a depth of not less than 27 feet (8^m2), and into the bay."

Line 28: *Delete* " a small " to " coast. " and *substitute* " a conspicuous square rocky hill, 100 feet (30^m5) high, about one mile inland. "

After line 33 insert :—

Chart 38.

After line 47 insert :—

Two islands, composed of volcanic mud, were situated, in 1945, about 6 miles south-south-westward and 7 miles southward of Ras Bāsōl; when first observed they were, respectively, about 7½ cables and 1½ miles in length, and from 20 to 30 feet (6^m1 to 9^m1) and 60 to 100 feet (18^m3 and 30^m5) high; about 10 days later these islands were about one cable and 1½ cables in diameter, and 47 and 32 feet (14^m3 and 9^m8) high.

In February, 1947, these two islands had submerged.

Page 73.—*After line 11 insert* :—

For " *Caution* " referring to volcanic disturbances, *see* page 67.

Lines 14-20: *Delete* " for " to " Jaddi " and *substitute* " by continuous ridges of shur which extend as far west as the barren north shore of Pasni bay where they attain a height of nearly 1,000 feet (304^m8). There are some outlying rocks off the north-eastern side of the bay and a rocky spit, with depths of 3 fathoms (5^m5), or less, over it, extends about half a mile eastward from Ras Jaddi, the western entrance point "

Line 21: *For* " swampy " *read* " sandy "

Lines 22-25: *Delete* " 2 " to " water " and *substitute* " 1½ miles northward of Pasni. The mouth is encumbered with drying banks and is protected on its southern side by a narrow sandy ridge; the khōr can only be entered by boats around high water "

Page 73 continued.

Line 27 : *After* " island," *insert* " about 2 miles long and half a mile wide and "

Line 30 : *After* " cliffs " *insert* " , consisting of soft clay rubble and ironstone conglomerate,"

Line 31 : *Delete* " there " to " at " and *substitute* " a sandspit extends about 3 cables seaward, and towards "

Line 32 : *Delete* " a sandy spit and "

Lines 33-36 : *Delete* " There " to " and " and *substitute* " Rocky ledges extend for about 4 cables from both ends of the island and there are some detached rocks above water along the southern side extending seaward for about 2 cables. Astola is covered with small scrub and at certain seasons of the year "

Line 39 : *For* " assent " *read* " ascent "

Line 40 : *Add* :—The island is visited by fishermen during the north-east monsoon, but is otherwise uninhabited.

Lines 41-43 : *Delete* " Webb " to " island." and *substitute* :—

Webb bank lies about $3\frac{1}{2}$ miles southward of Astole island and extends about 7 miles in an easterly and westerly direction ; it is a narrow ridge, steep-to on its southern side, with irregular depths of from 4 to 9 fathoms (7^m3 to 16^m5) in the channel between it and the island. There are depths of from 3 to 5 fathoms (5^m5 to 9^m1) over the bank and a least known depth, in 1950, of 12 feet (3^m7), situated about $4\frac{1}{2}$ miles south-south-eastward of the eastern extremity of Astola ; the sea breaks on the bank in places during the south-west monsoon and vessels approaching Pasni from south-eastward should not close Astola within a distance of 5 miles. Depths of $5\frac{1}{2}$ and 5 fathoms (10^m1 and 9^m1), which, in 1950, were unexamined, lie about 8 miles east-south-eastward and 6 miles south-westward of the eastern extremity of Astola.

Lines 48-50 : *Delete* and *substitute* :—

Depths of 3 fathoms (5^m5), or less, extend about one mile northward from the northern side of Astola, but in the channel between this and the mainland northward there are regular depths of from 5 to 8 fathoms (9^m1 to 14^m6).

Page 74.—Lines 2-19 : *Delete*.

Line 21 : *After* " bay " *insert* " about 3 miles "

Line 23 : *After* " westward " *insert* " , to which it is connected by a bus service "

Lines 24-26 : *Delete* and *substitute* :—

This small port, which has several thousand inhabitants, straggles inland for several miles and consists mainly of clay and mat huts with a few permanent buildings. The post and telegraph office, a large white building, about half a mile northward of the town, is conspicuous. There are no landing facilities.

Line 34 : *Delete* and *substitute* :—

Dried fish and dates are the principal exports with small quantities of wool, ghee, cotton and mats. General merchandise and white oils are imported. Trade is principally by dhow, but steamships on passage from the Persian gulf occasionally call.

The depths in the bay decrease regularly towards the shore, the 3-fathom (5^m5) line being about 2 miles offshore, except off Ras Jaddi where it is closer.

Page 74 continued.

Line 36: *For "about 1½" read "more than 2"*

Lines 38-39: *Delete and substitute :—*

During the south-west monsoon a considerable swell runs into the bay, Ras Jaddi giving little protection, and from April to September a heavy swell breaks along the shore, making the working of cargo difficult and often impossible.

Page 78.—*After line 12 insert :—*

A small island, composed of volcanic mud, was situated, in January 1946, about 4½ miles northward of Ras Kamaiti.

In February, 1947, it was only about half a cable in length.

Line 31: *After "Coast.—" insert "Light.—"*

After line 42 insert :—

A light for the use of aircraft is exhibited at an elevation of 30 feet (9^m1), from a beacon on a tower about [4 miles north-north-eastward] of Ras Ganz. See page 16.

Page 80.—*After line 53 insert :—*

For "Caution" referring to volcanic disturbances, see page 67.

Page 83.—*Line 37: Delete and substitute :—*

Chart 2851.

Line 40: *For "(Pazim), about 11" read "about 9"*

Line 46: *For "25° 19' N., Long. 60° 11'" read "25° 20' N., Long. 60° 12'"*

Page 84.—*Line 1: Delete and substitute :—*

Chart 2851.

Line 13: *After "which," insert "Sapt kūh, or"*

Line 53: *Delete "(Hamadan)"*

Page 85.—*Line 1: Delete and substitute :—*

Chart 2851.

Line 9: *For "11" read "17"*

Line 13: *For "1,680 feet (512^m1)" read "1,650 feet (502^m9)"*

Line 16: *For "1,350 feet (411^m5)" read "1,285 feet (391^m7)"*

Line 27: *Delete "(Doruk)"*

Page 86.—*Line 27: Delete and substitute :—*

Chart 2851.

Page 87.—*Line 1: Delete and substitute :—*

Chart 2851.

Line 2: *Delete "(Quoin)"*

Line 8: *For "Gukardi kūh" read "Gohart kūh, or Gukardi kūh"*

Line 13: *Delete "(Jabal Shahu)"*

Line 25: *For "31" read "33"*

Line 34: *For "18" read "19"*

Line 35: *For "58° 40'" read "58° 41'"*

Page 88.—*Line 1: Delete and substitute :—*

Chart 2851.

Line 6: *For "20" read "18"*

Page 88 continued.

Line 11 : *For* " Kūh-i-Loh (Gazdān kūh) " *read* " Hushdan kūh, or Kū-hi-Loh "

Line 13 : *Delete and substitute* :—

" The village of Chahru, with a few date palms, lies between Hushdan kūh and the "

Line 27 : *Delete and substitute* :—

Charts 145 and 2851.

Line 51 : *After* " village, " *insert* " with a population of 1,200 and "

Page 89.—Line 18 : *Delete* " can " to " cage " and *substitute* " conical buoy, surmounted by a staff and globe "

Line 45 : *For* " W/T. " and " W/T. " *read* " **Radio** " and " radio "

Page 90.—[Line 23 : *For* " 6,750 feet (2057^m4) " *read* " 8,100 feet (2468^m9) "]

Line 25 : *Delete and substitute* :—" view D on chart 2851."

Page 91.—Line 27 : *For* " on chart 2837a " *read* " D on chart 2851 "

Page 92.—Line 52 : *Add* :—In 1949, H.M.S. *Loch Quoich* anchored about 3 cables off Film village, in a depth of 22 fathoms (40^m2).

Line 54 : *Add* :—This bight is the northern of the two bays indicated on the chart. In 1948, H.M.S. *Wild Goose* anchored in the centre of the northern bay in a depth of 8 fathoms (14^m6), sand, with a mosque in the village bearing 191°. The mosque, which has four arches and is a prominent feature, is situated on the foreshore on the eastern side of the village. Depths in the approach to this bay shoal suddenly at its entrance to about 11 fathoms (20^m1), and thence decrease gradually to the sandy bay at its head. The local inhabitants are of a migratory type ; fresh water is scarce and dependant on direct rainfall.

Page 93.—Lines 14-15 and 33 : *For* " views on chart 2837a " *read* " view D on chart 2851 "

Lines 46-47 : *For* " on chart 2837a " *read* " D on chart 2851 "

Page 94.—Line 17 : *For* " on chart 2837a " *read* " D on chart 2851 "

Page 95.—Line 4 : *For* " views on chart 2837a " *read* " view D on chart 2851 "

Line 14 : *For* " on chart 2837a " *read* " D on chart 2851 "

Lines 20-21 : *Delete* " See " to " 2837a. " and *substitute* :—

See views facing this page and view A on chart 2837.

[*After* line 32 *insert* :—

A radiobeacon has been established on Little Quoin.]

Page 96.—Line 20 : *For* " on chart 2837a " *read* " D on chart 2851 "

After line 48 *insert* :—

In 1949, H.M.S. *Loch Quoich* passed through Fakk al As'ad (page 94), thence southward of Jazīrat Kūn and through Bab Mukhālīf, and thence westward between Ras Sharaita and Makhbuk (page 97) ; the passage was found to be deep and clear.

*Little Quoin Lt. Ho.,
 bearing 324°, 11 miles.*

Big Quoin.

Gap islet.



Quoin islands from southward.

(Original dated 1946.)

Big Quoin.

Gap islet.



*Little Quoin Lt. Ho.,
 bearing 076°.*

*Quoin islands from westward, distant about
 8 miles.*

(Original dated 1946.)

Page 97.—*After line 9 insert :—*

In 1948, depths of from 21 to 34 fathoms (38^m4 to 62^m2) were reported between 2½ and 4½ miles west-north-westward of Tawakkul ; the bank is not yet defined.

Line 12: *For* “ (page 112).” *read* “ (page 111).”

Line 14: **[Delete “ Buoys.— ”]**

Line 25: *Delete and substitute :—*

“ uninhabited, except for the caretaker of a radio station and a small Arab maintenance staff.”

After line 32 insert :—

There are several radio towers and a water tank in the vicinity of Ras Salib.

Lines 35-36: *Delete* “ light ; ” to “ reef.” and *substitute* “ light.

Line 40: *Delete* “ small ” and *for* “ 1½ feet (0^m5) ” *read* “ 4 feet (1^m2) ”

Line 43: *Add* :—Goats, eggs and fish are obtainable.

Page 98.—*After line 33 insert :—*

In the Khōr itself, the streams normally run northward and southward, but inshore there is a back eddy which runs in the opposite direction ; this is most useful for pulling boats making their way about the Khōr.

Line 35: *After* “ Ali.— ” *insert* “ Anchorage.— ”

After line 45 insert :—

There is anchorage, in a depth of 13 fathoms (23^m8), sand, at the head of Khōr Ghubb ‘Ali with the 1,106-foot (337^m1) summit, about 3 cables south-eastward of the village, bearing 134°, distant 8 cables.

Line 53: *Delete* “ views ” to “ 2837a ” and *substitute* “ view D on chart 2851 ”

Page 100.—Line 13: *After* “ Anchorage.— ” *insert* “ Tidal streams.— ”

After line 25 insert :—

Bullocks, goats, some eggs and oranges are obtainable.

After line 38 insert :—

The tidal streams at the inner anchorage are reported to be variable in direction and of moderate strength, but farther offshore they attain a greater rate.

Page 101.—Line 13: *For* “ on chart 2837a ” *read* “ D on chart 2851 ”

After line 54 insert :—

Anchorage has been found, in a depth of 22 fathoms (40^m2), with the western fort bearing 141°, distant about 1½ miles ; in this position the tidal streams set parallel with the coast.

Page 103.—Line 6: *For* “ on chart 2837a ” *read* “ view E on chart 2851 ”

Line 41: *Delete* “ views ” to “ 2837a ” and *substitute* “ view D on chart 753 and view F on chart 2851 ”

Page 104.—Line 4: *Delete* “ views ” to “ 2837a ” and *substitute* “ view F on chart 2851 ”

Page 105.—Lines 34 and 45 : *For* “ 2837a ” *read* “ 2837 ”

Line 46 : *For* “ (Lat. 56° 10' N., Long. 27° 25' E.) ” *read* “ (Lat. 27° 25' N., Long. 56° 10' E.) ”

Page 106.—Line 1 : *Delete and substitute* :—
Chart 2837.

Line 20 : *Delete* “ (See ” to “ 2837a). ”

Page 107.—Line 1 : *Delete and substitute* :—
Charts 753 and 3599, plan of Jazirat Hormuz anchorage.

Lines 14-15 : *Delete* “ and ” to “ 2837a ”

After line 23 insert :—

Landing at the jetty near the fort is not easy, as it dries out at low water.

Lines 39-40 : *Delete* “ coast,” to “ northward.” and *substitute* “ coast. The existence of the 3-fathom (5^m5) patch, charted in a position about 1½ miles eastward of the Portuguese fort, is doubtful.

A shoal, with a depth of 5 fathoms (9^m1) over it, lies about 2½ miles eastward of the fort.”

Lines 42-43 : *For* “ three-quarters of ” *read* “ about ”

Line 45 : *For* “ 2½ ” *read* “ 2 ”

Line 49 : *For* “ 236° ” *read* “ 228° ”

Page 108.—Line 1 : *Delete and substitute* :—
Charts 753 and 3599, plan of Jazirat Hormuz anchorage.

Line 7 : *For* “ 236° ” *read* “ 228° ”

After line 13 insert :

The M.V. *Samcolne*, in 1947, when leaving the anchorage drawing 27 feet (8^m2), found better water by steering an easterly course about half a mile southward of the track recommended above ; the least water obtained, 42 feet (12^m8), was found with the eastern extremity of the island bearing 180° and the fort bearing 262° when the vessel altered on to a south-south-easterly course.

After line 21 insert :—

Tidal streams.—Tidal streams in the anchorage set west-north-westward and east-south-eastward, at rates of from 1½ to 2 knots.
Chart 753.

Line 32 : *Delete* “ and ” to “ 2837a ”

After line 48 insert :—

Chart 3599, plan of Qishm.

Page 109.—Line 1 : *Delete and substitute* :—
Chart 3599, plan of Qishm.

Line 3 : *For* “ a hill ” *read* “ Qishm bluff ”

Line 24 : *For* “ 2 ” *read* “ 1½ ”

Line 39 : *For* “ at the southern end ” *read* “ near the middle ”

Line 41 : *After* “ anchorage ” *insert* “ ; the vessel should pass not less than 2½ cables northward of the light-buoy ”

Lines 44-46 : *Delete.*

Line 54 : *Add* :—In 1941, the population was about 10,000.

Page 110.—Line 7 : *Add* :—In 1946, the pier was in a bad state of repair.

Page 110 continued.

Line 18: *After* " below)." *insert* :—There is also anchorage, in a depth of about 5 fathoms (9^m1), westward of the prohibited anchorage with the British Consulate flagstaff bearing 004° distant about 3½ miles.

Line 20: *For* " anchorage is " *read* " anchorages are "

Line 21: *For* " anchorage " *read* " anchorages "

Line 47: *Delete* " Fresh " to " obtained." and *substitute* :—Calves, goats and chickens can be obtained in small numbers ; fish, eggs and fruit are more plentiful.

Page 111.—Lines 7-8: *Delete.*

Page 112.—Lines 28 and 53: *For* " on chart 2837a " *read* " B on chart 753 "

After line 42 *insert* :—

Ghail and Henjām each have a population of about 200 and at Ras Masheh, the official settlement, there are about 80 inhabitants.

Line 45: *Delete* " Buoy.— "

Page 113.—Lines 2-3: *Delete* " , and " to " buoy "

Page 114.—Lines 2-4: *Delete.*

Lines 38-39: *Delete* " with " to " steps," and *substitute* " 300 feet (91^m4) in length, with a depth of 2 feet (0^m6) alongside, and wooden steps near its head,"

Page 115.—Line 37: *For* " on chart 2837a " *read* " B on chart 753 "

Page 116.—Line 17: *Delete* " and " to " 2837a "

Line 42: *Delete* " on " to " and "

Page 117.—Line 44: *Delete* " at " and *substitute* " without difficulty on the rocks off "

Page 118.—Line 4: *Delete* " on " to " and "

After line 10 *insert* :—

In 1949, H.M.S. *Loch Quoich* anchored in 4½ fathoms (8^m2) about 2 cables off the south-eastern part of the island where a sandy beach provided easy landing.

Page 119.—Line 7: *Add* :—In 1949, there was a population of about 200, housed in a village near the flagstaff.

After line 13 *insert* :—

In 1949, H.M.S. *Loch Quoich* anchored off the southern part of the island with Jabal Halwa bearing 342°, distant nearly 2½ miles ; this anchorage provided excellent holding ground and no dragging was experienced during a shamāl of force from 7 to 8.

Line 16: *Add* :—It has been reported, however, that several coral heads exist farther inshore, with depths of less than 12 feet (3^m7) over them, and this anchorage is not recommended on that account.

Line 45: *For* " 2837a " *read* " 2837 "

Page 120.—Line 1: *For* " 2837a " *read* " 2837 "

Page 123.—Line 18: *After* “ **Directions.**— ” *insert* :—There is anchorage in the eastern entrance of the strait, in a depth of 10 fathoms (18^m3), good holding ground, with Milne head bearing 214°, distant 4½ miles ; in this position the flood tidal stream sets west-north-westward, and the ebb east-south-eastward, both attaining a rate of 2 to 3 knots at springs and changing direction about 2 hours after high and low water, respectively, at Bandar ‘Abbās.

Page 128.—Line 41: *Delete* “ (See ” to “ 2873a). ”

Page 129.—Line 46: *For* “ 2837a ” *read* “ 3517 ”

Line 47: *After* “ town,” *insert* “ with a population, in 1941, of about 1,000 and ”

Line 50: *After* “ groves.” *insert* :—For some years the state of the town has deteriorated and, in 1950, only about one tenth of the shops and buildings were in use.

Lines 52-53: *Delete* “ and the ” to “ vicinity ”

Line 54: *For* “ minaret ; ” *read* “ yellow stone leaning minaret, 83 feet (25^m3) high ; ”

Page 130.—Line 1: *For* “ 2837a ” *read* “ 3517 ”

Line 3: *For* “ wireless ” *read* “ radio ”

Lines 5-6: *Delete* “ ; but ” to “ identified ”

Line 7: *Add* :—In 1949, the radio masts were visible from a distance of about 2 miles, but it was not possible to identify the reservoirs.

Line 10: *Add* :—Both are artificial small craft harbours, constructed of piled stones ; in 1950, they were in a good state of repair but were usable only at, or near, high water as considerable silting had taken place. The north-eastern camber has a wharf frontage of about 120 feet (36^m6) with a depth alongside of 4 feet (1^m2) at high water, and is used by fairly large dhows. The south-western camber has a narrow entrance and is only suitable for very small craft. Easterly winds produce a sharp sea at the entrances to both cambers.

Line 20: *Delete* “ good.” and *substitute* “ good, but there are no cranes.”

Page 131.—Line 13: *For* “ on chart 2837a ” *read* “ C on chart 753 ”

Page 132.—Lines 5, 23 and 36-37: *Delete* “ (See ” to “ 2837a). ”

Line 14: *Add* :—There are two large wells on the island.

Page 133.—*After* line 25 *insert* :—

Caution.—*See* page 188.

Page 134.—Line 12: *Delete* and *substitute* :—

Chart 3517, plan of Chārah.

Lines 13-14: *Delete* “ village ” to “ tower ; ” and *substitute* “ village ; ”

Line 22: *After* “ on a ” *insert* “ conspicuous.”

Line 29: *Delete* “ (see ” to “ 2837a) ”

Page 135.—Line 1: *Delete* and *substitute* :—

Charts 2830, 2837 and 2847.

Line 14: *Delete* “ (see ” to “ 2837a) ”

Page 136.—Line 19 : *Delete and substitute :—*
Chart 3517, plan of Chirū.

Page 137.—Line 7 : *After “ Light.— ” insert “ Obstructions.— Light-vessel.— ”*

Line 11 : *Delete and substitute :—*
“ of 79 feet (24^m1), from a white steel structure, 39 feet (11^m9) in height,”

After line 24 insert :—

Obstructions were reported, in 1940, within an area, indicated by a dotted line on the chart, centred about 2½ miles south-south-eastward of the light-structure on the southern side of Jazīrat Qais.

A light is exhibited, at an elevation of 32 feet (9^m8), from a light-vessel, the position of which is approximate, with one mast and a red hull, marked “ Kais Island ” in white letters on each side, moored about 2 miles southward of the light-structure on the southern side of Jazīrat Qais.

Line 25 : *For “ 2837a ” read “ 3517 ”*

Line 27 : *For “ south-westward ” read “ west-south-westward ”*

Line 44 : *After “ a ” insert “ conspicuous ”*

Page 138.—Line 1 : *For “ 2837a ” read “ 3517 ”*

After line 15 insert :—

A vessel passing southward of Jazīrat Qais should do so in a depth of not less than 20 fathoms (36^m6) and southward of the light-vessel.

Line 40 : *For “ 2837b ” read “ 3517 ”*

Page 139.—Line 1 : *For “ 2837b ” read “ 3517 ”*

Page 140.—Line 1 : *For “ 2837b ” read “ 3517 ”*

Line 21 : *For “ Light-vessel.—Fog signal.—Shoal.— ” read “ Light-vessels.—Shoal.—Buoy.— ”*

Lines 25-28 : *Delete and substitute :—*

Stiffe bank was reported, in 1947, to lie one mile westward of its charted position.

A light is exhibited, at an elevation of 30 feet (9^m1), from a light-vessel, the position of which is approximate, with one mast and a red hull, marked “ Stiffe Bank ” in white letters on each side, moored on Stiffe bank ; the vessel carries a black cylinder at the masthead, above which is a red lantern.

Line 40 : *Add :—*A red spherical buoy, not always easily seen, is moored close northward of the shoal. In 1949, the buoy was reported to be very inconspicuous.

Line 45 : *For “ 35 miles west-south- ” read “ 30½ miles ”*

After line 46 insert :—

Cable bank was reported, in 1947, to lie 1½ miles westward of its charted position.

A light is exhibited, at an elevation of 30 feet (9^m1), from a light-vessel, painted red with “ Cable Bank ” in white letters on her sides, moored on Cable bank.

Line 51 : *Delete and substitute :—*

Chart 3517, plan of Mugām.

Page 141.—Line 1 : *Delete and substitute :—*

Chart 3517, plan of Mugām.

Line 26 : *For " 2837a " read " 2837 "*

Page 142.—Lines 37-38 : *Delete " See " to " 2837b."*

Line 49 : *Delete and substitute :—*

Charts 2837 and 2847.

Page 143.—Line 1 : *Delete and substitute :—*

Charts 2837 and 2847.

Page 144.—Line 1 : *Delete and substitute :—*

Charts 2837 and 2847.

Lines 19-20 : *Delete " , C " to " 2837b " and substitute " on chart 2847 and B on chart 2837 "*

Lines 26-27 : *Delete " , C " to " 2937b," and substitute " on chart 2847 "*

Line 32 : *Add :—*The village has a population of about 400.

Page 145.—Line 1 : *Delete and substitute :—*

Charts 2837 and 2847.

Line 23 : *Delete and substitute :—*

Chart 2847.

Line 26 : *Delete " (Achar) "*

Line 47 : *Delete " 3½ " to " (Miyālu) " and substitute " 2½ miles north-westward of 'Ayānāt is Miāntū "*

Line 50 : *Delete " (Kangun) "*

Page 146.—Line 1 : *Delete and substitute :—*

Charts 2837 and 2847.

Line 9 : *Delete " (Kalat) "*

After line 18 insert :—

Chart 2847.

Line 19 : *For " 27° 49' " read " 27° 50' "*

Line 26 : *Delete " (Jabal Direng) "*

Line 33 : *Delete and substitute :—*

" A and B on chart 2847."

Line 38 : *Add :—*See view B on chart 2847.

Line 43 : *For " 5 miles north-westward " read " 4 miles westward "*

Line 48 : *For " 7 miles westward " read " 6 miles west-south-westward "*

Page 147.—Line 1 : *Delete and substitute :—*

Chart 2847.

Line 12 : *For " 51° 54' " read " 51° 55' "*

Line 18 : *For " 9 " read " 7 "*

Lines 36 and 51 : *For " south-western " read " south-eastern "*

Lines 47-49 : *Delete " Shoal " to " hill."*

Page 148.—Line 1 : *Delete and substitute :—*

Chart 2847.

Line 11 : *For " about 4½ " read " with the latter point about 1½ "*

Line 21 : *For " south-western " read " south-eastern "*

Line 46 : *Delete " 28° 02' " to " 15 " and substitute " 28° 00' N., Long. 51° 20' E.), about 13 "*

Page 149.—Line 1 : *Delete and substitute :—*
Chart 2847.

Line 4 : *For " 8 " read " 11 "*

Line 6 : *Delete " , from " to " 098° , "*

Lines 15-17 : *Delete " Ziyārat " to " northward " and substitute " Lāvar is a small village about 3 miles northward of Khōr Ziyārat and, about 3 miles north-north-westward of it, "*

Line 18 : *For " Lāvar, about " read " About "*

Line 29 : *Delete " Lāvar " to " 51° 13' E.) " and substitute " Bālangistān (Lat. 28° 17' N., Long. 51° 14' E.) "*

Lines 31-32 : *Delete " Lāvar " to " 6 " and substitute " Bālangistān and Qalat, about 7 "*

Line 40 : *For " Būriāl (Bu Riyal) " read " Kuh Sehtanj "*

Line 44 : *Delete " views " to " 2837b " and substitute " view C on chart 2847 "*

Line 45 : *For " situated about 2 " read " Kuh Khōr Shahabi and Delpari, about 1½ "*

Line 46 : *For " Būriāl " read " Kuh Sehtanj "*

Line 50 : *Delete and substitute :—*

" Khūrmūj, about 22 miles north-eastward of Kuh Sehtanj "

Page 150.—Line 1 : *Delete and substitute :—*
Chart 2847.

Lines 3-4 : *Delete " views " to " 2837a " and substitute " view C on chart 2847 "*

Lines 17-18 : *For " 'Umari ('Omari) " read " Khōr Shahabi "*

Line 21 : *After " southward. " insert :—About 2 miles northward of Khōr Shahabi is 'Umari.*

Line 42 : *For " 6 " read " 7 "*

Line 48 : *For " 3 " read " 4½ "*

Page 151.—Line 1 : *Delete and substitute :—*
Chart 2847.

Line 20 : *For " 5½ miles " read " 7 miles north- "*

Page 153.—Line 30 : *Delete and substitute :—*
Chart 2847.

【Line 54 : *Delete and substitute :—*

" horizontal bands and exhibiting a white group flashing light, showing two flashes every twelve seconds, is moored]

Page 154.—【Lines 4-5 : *Delete " flashing " to " ten " and substitute " group flashing light, showing two flashes every twelve "]*

Line 38 : *For " , 2837b " read " and 2847 "*

Line 51 : *For " Būriāl " read " Kuh Sehtanj "*

Line 52 : *Delete and substitute :—*

" 27 and view C on chart 2847. "

Page 155.—Line 1 : *For " , 2837b " read " and 2847 "*

Page 156.—Line 35 : *After " This, " insert " which was "*

Line 38 : *Add :—*Since the construction of the trans-Iranian railway and the development of the Shatt al Arab ports, Bushire has become of minor importance as a port.

Page 157.—Lines 8-11 : *Delete* “ Distilled ” to “ it.” and *substitute* :—No water is available for ships ; the town depends on wells and private rainwater tanks.

Custom house quay, where there is a depth of about 3½ feet (1^m1) alongside, is situated in Khôr Sultāni, about half a mile south-south-eastward of the northern end of Bushire ; it can be identified by a 10-ton travelling crane and a 7-ton fixed crane.

There is a jetty, with a depth of about 8 feet (2^m4) alongside, maintained by the Anglo Iranian Oil company, situated on the western side of the entrance to Khôr Pūdar, about 1½ miles south-eastward of Custom house quay.

In addition to the quay and jetty referred to above, landing may also be effected alongside the embankment which extends north-north-westward from Custom house quay.

Numerous dhows are available for lighterage, but there are no tugs. There are no repair facilities.

Line 17 : *For* “ **W/T** ” and “ W/T ” *read* “ **Radio** ” and “ radio ”

Page 158.—Line 1 : *Delete and substitute* :—
Chart 2837.

Line 6 : *Delete* “ (Dabei) ”

Line 33 : *For* “ 30.” *read* “ 30-31.”

Page 159.—Lines 20-26 : *Delete* “ Rams ” to “ behind it.” and *substitute* :—

The town of Rams lies on the south-eastern side of a lagoon, the entrance to which is obstructed by a bar on which the sea breaks ; the seaward side of the lagoon is formed by a long sandy spit extending from south-westward ; the lagoon is used by dhows. In 1922 it was reported that the depths off Rams were less than charted. The town may be identified by a round fort at the south-western end and a minaret at the north-eastern end. About a mile north-eastward of Rams is Zai hill-fort which, however, does not show up well against its background of dark mountains. *See view facing this page.*

Page 160.—*After line 9 insert* :—

In 1949, it was reported that the passage into the lagoon, though long, was deep and clear and easily accessible by boats drawing about 3 feet (0^m9).

[In 1953, it was reported that the channel is most unstable, and that large dhows sometimes get marooned inside, while at other times there is a least depth of 10 feet (3^m0).]

Line 30 : *After* “ name.” *insert* :—Viewed from south-westward it does not appear as an island.

After line 34 insert :—

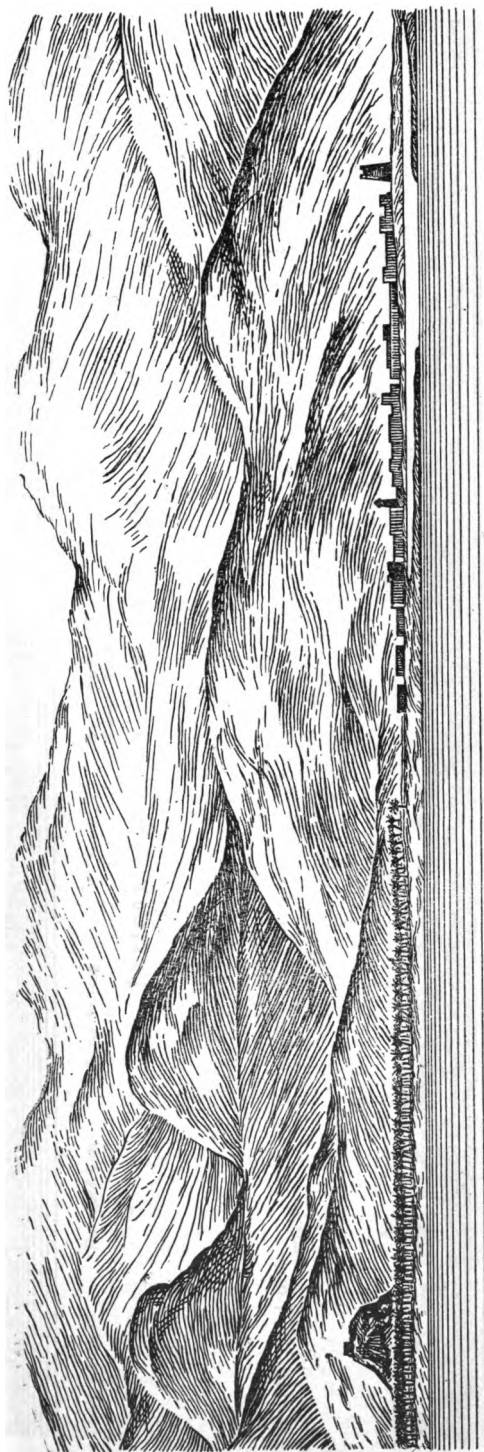
See view facing this page. The population, in 1951, was about 2,500 and the principal industry pearl fishing.

Lines 53-54 : *Delete* “ Near ” to “ al ”

Page 161.—Lines 1-35 : *Delete and substitute* :—
Chart 3705, plan of Umm al Qaiwain.

Umm al Qaiwain.—This inlet, which is an extensive backwater in which there are several low islets, is entered between the south-western extremity of Seneya island, situated on the seaward side of Khôr al Baidha, and the peninsula of Umm al Qaiwain.

to face page 159 of Book.
" " " 26 of Supplement.



Zai fort.

Thick date palms.

Rams minaret.

Fort

Town of Rams from 150 yards westward of the northern entrance
(Original dated 1951.)

To face page 180 of Book.
 " " " 28 of Supplement.



*Tower bearing
 208°.*

Red sand hills.

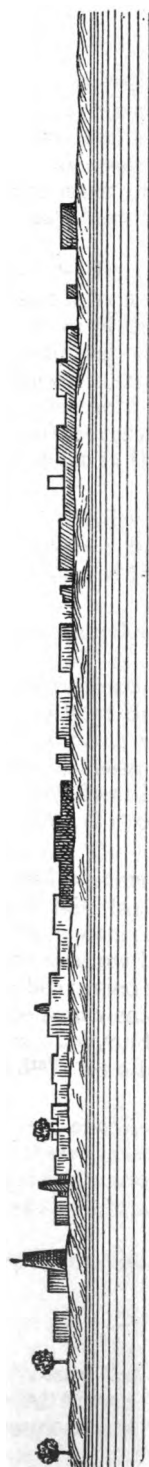
*Tower bearing
 210°.*

*Fort bearing 215°,
 distant 2½ miles.*

Prominent red sand hills.

Jazirat al Hamra from north-eastward.

To face page 181 of Book.
 " " " 28 of Supplement.



*Tower bearing 108°
 distant one mile.*

Village of Al Hamriya.

Page 161 continued.

Seneya island, which is about 5 miles in length, is low-lying with sandhills covered with grass and scrub. Milah tower, a conspicuous square structure, stands near the centre of the island, and near its south-western extremity there is a conspicuous hut. Two conspicuous trees stand within a distance of $8\frac{1}{2}$ cables south-westward of Milah tower; the positions of these conspicuous objects may best be seen from the chart.

The peninsula of Umm al Qaiwain, on which stands the town of that name, is separated from the mainland westward of it by a narrow isthmus just over half a cable in width. Near the centre of the town there stands the Shaikh's fort, a conspicuous square building with two round towers and a flagstaff. Bakhut tower, a conspicuous structure, stands on the eastern side of the peninsula; on the southern side of the town, and also westward of the isthmus, there are several other conspicuous towers, for the positions of which the chart is the best guide.

Large banks, on which there are drying patches, extend seaward from Seneya island and from Umm al Qaiwain peninsula; between these two banks there is a narrow channel leading to Umm al Qaiwain inlet.

The inlet is approached from a position about $1\frac{1}{4}$ miles northward of Bakhut tower on Umm al Qaiwain peninsula (*Lat.* $25^{\circ} 35' N.$, *Long.* $55^{\circ} 35' E.$). The approach channel runs in a southerly direction and is narrow and tortuous; the bar, over which there is a least depth of 2 feet (0^m6), lies about midway between the channel entrance and the entrance to the inlet. Northward of the bar, depths of about 6 feet (1^m8) can be carried by boats with local knowledge; southward of the bar, depths gradually increase to as much as 6 fathoms (11^m0).

Within the entrance the inlet splits into three arms. The eastern arm connects with Khōr al Baidha; the southern and western arms are divided by an extensive drying bank on which lies Jazīrat al Ghubba, a low-lying straggling islet distinguished by a conspicuous tree. The eastern and western arms of the inlet are shallow but, in the southern arm, a depth of about 19 feet (5^m8) can be carried south-eastward to a position about three-quarters of a mile south-eastward of the south-eastern extremity of Jazīrat al Ghubba; beyond that, there are general depths of from 9 to 12 feet (2^m7 to 3^m7) for a farther $1\frac{1}{4}$ miles southward.

Anchorage.—Anchorage outside the inlet may be obtained, in depths of from 6 to 7 fathoms (11^m0 to 12^m8), about three-quarters of a mile north-westward of Mahsum tower, a conspicuous structure situated westward of the isthmus; in winter, vessels should anchor farther out in a depth of 8 fathoms (14^m6).

Landing on the shores outside the inlet is bad, except in fine weather.
Chart 3707.

Line 48 : *Add* :—*See view facing this page.*

Page 162.—Line 30 : *After* " north-westward ; " *insert* " a tower stands about a mile south-westward of the fort at Al'Ajman and a cable inland ; another tower, 46 feet (14^m0) high, stands about three-quarters of a mile south-westward of the fort ; "

Line 36 : *After* " Shārja.— " *insert* " Lights.— "

Page 162 continued.

After line 42 insert :—

Red lights are exhibited from six radio masts, each 100 feet (30^m5) high, standing about a mile east-north-eastward of the Shaikh's residence.

Page 163.—Lines 4-5 : Delete " In 1928," to " point."

Line 49 : Delete " Berij " to " tower," and substitute " Nahar tower (chart 3705), a castellated structure,"

Line 53 : Delete and substitute :—

Chart 3705, plan of Dibai.

Line 54 : Delete " (Dabei) "

Page 164.—Line 1 : Delete and substitute :—

Chart 3705, plan of Dibai.

Line 2 : Delete " (Dabei) "

Lines 8-9 : Delete " (Shendagha) "

Lines 14-16 : Delete " The " to " fort." and substitute :—

Nayif tower, 63 feet (19^m2) in height, and a minaret, 69 feet (21^m0) in height, about 7 and 8 cables north-eastward of the fort, respectively, are indentifiable on approaching Dibai.

Line 19 : For " conspicuous " read " prominent "

Line 20 : For " creek." read " inlet."

Lines 21-24 : Delete.

Line 33 : For " 4½ fathoms (8^m2) " read " 5½ fathoms (10^m1) "

After line 38 insert :—

In 1949, H.M.S. *Loch Quoich* anchored with the fort bearing 101°, distant 17 cables, and found the holding ground quite good.

Line 42 : For " about 4 " read " nearly 4½ "

Line 43 : For " the stony flat " read " a stony flat "

Lines 45-53 : Delete " In 1933 " to " fairway," and substitute :—

In 1948, Nayif tower, situated 7 cables north-north-eastward of the fort, bearing about 144°, led over the bar. In 1949, the passage into the Khōr, for a boat drawing about 3 feet (0^m9), was found to be easily accessible at all states of the tide. The channel winds southward and passes close to the western entrance point, and thence turns eastward. A spit, which dries 3 feet (0^m9), extends south-westward from a point on the northern side of the channel where it turns eastward ; thence the channel follows the northern shore, passing northward of a drying shoal which lies about midway between the two shores. The deepest part of the Khōr lies between the above-mentioned spit and the drying shoal, and depths of from 7 to 27 feet (2^m1 to 8^m2) exist here between the two shores for a distance of about 3 cables.

Line 54 : Delete " three-quarters of "

Page 165.—Line 1 : Delete and substitute :—

Chart 3705, plan of Dibai.

Line 3 : After " alongside." insert :—A pier projects from the southern side of the Khōr, close northward of a large white house situated about 3 cables west-north-westward of the fort.

Line 18 : After " only " insert " prominent "

Lines 19 and 45 : Delete " See " to " 2837a."

Page 165 continued.

After line 19 insert :—

Chart 3705, plan of Jebajib bay.

Jebajib bay.—Beacons.—This bay, which is in fact only a slight indentation in the coast, is situated about 7 miles west-south-westward of Jabal al 'Āli. The 3-fathom (5^m5) line here lies about half a mile offshore but shoals, with a least depth of 17 feet (5^m2) over them, lie farther seaward. The coast in the vicinity is fringed by shelving reef in places behind which irregular sand hills and hummocks rise to a height of 30 feet (9^m1).

Eight beacons, numbered from 1 to 8 in a south-westerly direction, stand near the coast at intervals of about 200 yards (182^m9) apart. No. 5 beacon, bearing 150°, leads across the shoals, in a least depth of 18 feet (5^m5), through a small area of surveyed water towards the 3-fathom (5^m5) line.

Chart 3707.

Lines 27-31 : *Delete and substitute* :—

“ Ras Kantūt.

Chart 3705, plan of Khōr Al Ghanādha.

Khōr Al Ghanādha.—Beacons.—Buoyage.—Khōr Al Ghanādha is entered about 2½ miles south-westward of Ras Kantūt through a narrow channel with depths of from one foot to 21 feet (0^m3 to 6^m4) in it ; the deepest part is about 2 cables southward of Ras Al Ghanādha, the eastern entrance point. The entrance channel was, in 1950, marked by six can buoys, the positions of which can best be seen on the chart. Maude and Dickson beacons stand on Ras Ghanādha and 5½ cables east-north-eastward of the point, respectively.

Anchorage, in a depth of about 8 feet (2^m4), is shown on the plan about 8 cables northward of Ras Al Ghanādha.

Chart 3707.

From Khōr Al Ghanādha to Abu Dhabi, about 30 miles south-westward, there is a succession of inlets, the majority of ”

Line 36 : *Delete* “ (Hanyūra) ”

Line 54 : *Delete and substitute* :—

“ Ras al Gharab (Lat. 24° 37' N., Long. 54° 30' E.), about 11½ ”

Page 166.—Line 1 : *Delete and substitute* :—

Chart 3705, plan of Khōr Essadiyāt.

Lines 4-6 : *Delete and substitute* :—

“ **Khōr Essadiyāt.—Beacons.—Buoy.**—Khōr Essadiyāt is entered between Ras al Gharab and Ras Sādiyāt, about 2 miles south-westward. The approach channel, the outer end of which was, in 1950, marked by a barrel buoy, has depths of from 2½ to 4 fathoms (4^m6 to 7^m3) in it ; thence the depths decrease towards Ras Sādiyāt off which there is a bar with depths of from 4 to 11 feet (1^m2 to 3^m4) over it ; within the bar the depths increase and there are depths of from 6 to about 17 feet (1^m8 to 5^m2) for a distance of about 4 miles to Camp island where the channel turns southward along the eastern side of Ramhan island and the depths decrease again ; Ramhan island is covered with mangroves ; there is also a channel which leads along the south-western side of the island but it is shallow, with depths of from 4 to 11 feet (1^m2 to 3^m4) in it.

In 1950 a beacon stood on the eastern side of Ras Sādiyāt ; also on the three islets lying about 2½ and 2¾ miles south-south-eastward of

Page 166 continued.

Ras Sādiyāt ; a beacon also stood on the drying reef off the northern extremity of Ramhan island and on the western extremity of Jesairah Fahad, an island about 2 miles south-south-westward of Camp island.

Chart 3707.

Ras "

Line 7 : *For " Ghurab " read " Gharab "*

Lines 10, 42 : *For " 2837a " read " 3705 "*

Line 13 : *For " six " read " five "*

Lines 19-20 : *Delete " tall " to " A "*

Line 21 : *For " 2 " read " 3½ "*

Line 23 : *Add :—*A new fort, the position of which is approximate, is shown on the chart about 7 cables eastward of the fort mentioned above.

Line 51 : *After " anchor." insert :—*It was reported, in 1948, that this point was not easy to distinguish beyond a distance of four miles offshore and became difficult to distinguish within 1½ miles of the shore when approaching the anchorage off the fort.

After line 54 insert :—

H.M.S. *Wren*, in February, 1948, approached the anchorage with the fort bearing 114°, and anchored with the fort on the same bearing, distant 8½ cables, in a depth of 3 fathoms (5^m5). Between 1½ miles and 6½ cables of the shore, with the fort bearing 114°, depths were found to be 3 feet (0^m9) less than those charted.

Page 167.—Line 1 : *For " 2837a " read " 3705 "*

Line 34 : *Delete and substitute :—*

Charts 3707, 2837 and 2847.

Page 168.—Line 1 : *Delete and substitute :—*

Charts 3707, 2837 and 2847.

Lines 43-44 : *Delete " See " to " 2837a."*

Line 49 : *For " on " read " about 1½ cables north-north-westward of "*

Lines 51-53 : *Delete and substitute :—*

There is iron oxide in the island and during the winter months when the mines are worked a village on the southern side of the island may have a population of 250 ; during the remainder of the year the island is occupied by an Arab caretaker and a guard who, with their families, live in mud and concrete huts about 6 cables northward of the flagstaff ; there is a bungalow for the use of the European visiting manager about 6 cables north-westward of the flagstaff. The iron oxide is dumped on the sand north-westward of the flagstaff and is dark red in colour. There are two brackish wells inland and the island is barren except for some brushwood which supports a few goats and up in the hills are some wild cats, sea birds and curlew.

Page 169.—*After line 7 insert :—*

In 1948, H.M.S. *Wren* obtained good anchorage, sheltered from the shamāl, in a depth of 10 fathoms (18^m3), about 3 cables offshore with the peak bearing 275°.

Lines 12, 16, 20 and 31 : *For " Rak " read " Rig "*

Line 17 : *For " Rak al Hajji " read " Rig al Halj "*

[Line 43 : Add :—A few are inhabited seasonally**]**

Page 170.—Line 11 : *Delete* “ (Kahaf) ”

Line 14 : *Delete* “ (Kantür) ”

Line 20 : *Delete* “ (Kantur) ”

Lines 27 and 34 : *Delete* “ (Bazam) ”

Lines 42 and 46 : *For* “ Al Junaina ” *read* “ Salāhah ”

Line 45 : *For* “ A rocky islet ” *read* “ Junanah, a rocky islet, ”

Line 47 : *After* “ islet ” *insert* “ , Umm Amim, ”

【Lines 48-【50】 : *Delete and substitute* :—

【Marrawah, an island 24 feet (7^m3) high at its western end, is situated about 4 miles north-westward of Junanah. It is partly covered with mangroves. There is a small village on the north-western part of the island, composed of rush huts with one stone building. Further eastward there are some brackish water holes. The population numbers about 80 in the winter but not all of these are permanently resident.

Fiyya, 12 feet (3^m7) high, separated from Marrawah by drying sand and coral, and lying close westward, is also inhabited seasonally by about 79 natives. There are a few stone houses on the north-eastern part of the island. The island is sandy and scrub-covered, except at its eastern end where there are some mangroves.

A coral and sand spit extends about 3½ miles west-south-westward from the island】

Lines 51 and 54 : *Delete* “ al ”

Line 52 : *For* “ Al Fiha ” *read* “ Marrawah ”

Page 171.—【Lines 2-4 : *Delete and substitute* :—

Bazm al Gharbi lies 4½ miles west-north-westward of Fiyya, and is the westernmost island on Bazm reef. It is 8 feet (2^m4) high, sandy and covered with scrub, and has some mangroves along its eastern shore. It is uninhabited.

Marrawah, Fiyya, and Bazm al Gharbi are all fringed on the southern side by coral reefs from 2 to 5 cables wide, making landing difficult.

Bazm reef extends 1½ miles south-eastward and 2½ miles north-westward of Bazm al Gharbi.】

Lines 5, 26 and 48 : *For* “ Reideim ” *read* “ Reedeim ”

Lines 10, 12, 14, 20, 26, 37 and 38-39 : *For* “ Rak al Hajji ” *read* “ Rig al Halj ”

Lines 11 and 40 : *For* “ Mubarraz ” *read* “ “ Mubarras ”

Line 13 : *Delete* “ al ”

【Lines 43 to 54 : *Delete and substitute* :—

Khōr al Bazm.—Khōr al Bazm is a blind channel except for boats (see page 170) leading between Bazm reef and the mainland for about 45 miles. At its entrance it is about 3½ miles wide which decreases to about one mile at its head. It has not been surveyed eastwards of Fiyya.

It is best approached from the direction of Jazīrat Yas, northwards of Jazīrat Yabr and ‘Ish, but can also be entered from north-westwards of Reedeim ; this latter channel has not been surveyed.

Coast.—Ras al Aish is a low-lying rocky point fringed by coral reefs, about 9 miles south-south-eastward of Bazm al Gharbi. It is backed by Hadwaniya, a range of stony flat-topped hills, 125 feet (38^m1) high. Jabal Gharain is a conical hill 114 feet (34^m3) high, which shows white against the darker background of Hadwaniya. It is prominent when bearing more than 160°.

Page 171 continued.

A string of low-lying, scrub-covered islands, coral reefs and drying sands extend from Ras al Aish to a point 5 miles north-westward of Jazīrat al Hamar, 20 miles north-westward of Ras al Aish. Of these islands, Bu Shirayah and Dagallah are inhabited by a few Arabs during the winter months; they are mainly engaged in fishing. Thimariyah, 7 miles westward of Ras al Aish is mostly low-lying, but rises to a cliffy headland at its north-western end, 49 feet (14^m9) high. The coast lies from 1½ to 2½ miles southwards of these islands and reefs, and is generally low and sandy with the exception of Ras al Jala'a, a promontory with cliffs 90 feet (27^m4) high, which is remarkable. Ras al Jala'a is fringed by a coral reef extending 3½ cables offshore.

An area of shallow water is enclosed between these islands and the coast, and only boats of shallow draught can enter. The positions of the various boat channels can best be seen from the chart.

The hinterland is desert; it is characterised by ranges of stony, rugged and generally flat-topped hills running in a south-easterly direction, separated from one another by large areas of flat sand which flood at exceptionally high tides. The highest of these hills are flat-topped "buttes" of which the most prominent are Kihal 136 feet (41^m5) high (*Lat.* 24° 07' N., *Long.* 53° 01' E.), Manaiyif 183 feet (55^m8) (*Lat.* 24° 06' N., *Long.* 52° 56' E.), the hills southward of Ras al Jala'a 112 feet (34^m1) high, and Ruweis 125 feet (38^m1) high (*Lat.* 24° 05' N., *Long.* 52° 44' E.).

The coast from southwards of Jazīrat al Hamar westward, is generally low-lying and sandy with a few small stony hills rising to an elevation of about 30 feet (9^m1). It is fringed by a coral reef extending from 2 to 5 cables offshore with a few breaks, and backed by a large area of sand flats which flood and partly cover at high water.

Jabal Dhanna, a prominent peak 384 feet (116^m4) high, of volcanic origin, and surrounded by numerous smaller peaks interspersed with ravines, lies about 5½ miles southward of Jazīrat Yas. There are two small but prominent "buttes" 2½ miles south-eastward and 1½ miles eastward of Jabal Dhanna, 91 feet (27^m7) and 75 feet (22^m9) high, respectively.

Off-lying Islets.—Dangers.—From Jazīrat Ghasha (*see* page 173), a complex bank with deep channels, coral reefs, and drying sandbanks extends about 18 miles east-south-eastward. A number of low-lying islands are situated on this bank.

Umm Kirkum, a sandy islet 3 feet (0^m9) high, lies 6 miles east-south-eastward of Jazīrat Ghasha.

Umm Qasar, 11 feet high (3^m4), is separated from Umm Kirkum by a narrow channel.

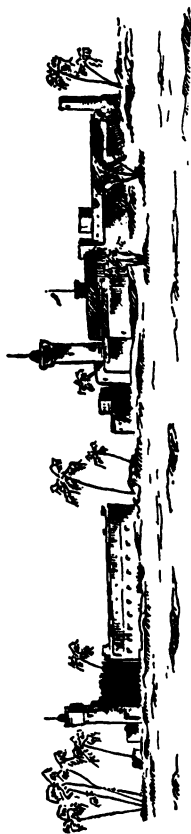
Hook islet, a very small sandy islet, 3 feet (0^m9) high, lies 2 miles south-westward of Umm Qasar.

Fata'ir is a small ridge of sand 3 feet (0^m9) high, situated on a coral reef 5 miles eastward of Hook islet. There are two small sandbanks, which dry 5 feet (1^m5), about one mile westward and south-westward, respectively, of Fata'ir.

Jazīrat 'Ish is an islet 9 feet (2^m7) high, about 3½ miles south-south-eastward of Fata'ir. It is situated at the southern end of a fairly extensive coral reef; this reef has a small lagoon with depths of 7 fathoms (12^m8) at its northern end.

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Abu Dhabi Fort, bearing 114° , distant $8\frac{1}{2}$ cables.

(Original dated 1948.)

Page 171 continued.

Niwat al Boom, consisting of two coral heads with a least depth of one foot (0^m3) over them, lies about 4 miles south-south-eastward of Hook islet.

Coral heads and reefs with depths of less than 3 fathoms (5^m5) over them, extend southward of Niwat al Boom and south-eastward from Jazīrat 'Ish as far as Dagallah. Numerous shoals extend northward and westward from Ras al Aish in the entrance to the Khor al Bazm.

Samman is a sandy spit and off-lying sandbank with a depth of 7 feet (2^m1) over its outer end, extending nearly 4 miles west-south-westward from Bazm al Gharbi.

Directions.—A vessel proceeding to Khor al Bazm should follow the directions for Jazīrat Yas anchorage (*see* page 174) until Jazīrat Yabr bears 133° distant 5½ miles. She should then steer 100° until Jazīrat Yabr bears 171° distant 2·9 miles, and then alter course to 126° keeping to the recommended track. The least depth on this track is 27 feet (8^m2), 2¼ miles northwards of Jazīrat Yabr. Thence she should alter course to 077° with Jazīrat Yabr, bearing 257°, astern, and alter course to 100° when Hook islet bears on 280° astern, and to 126° when Fata'ir bears 306°. The vessel can proceed on an easterly course for Khor al Bazm when the northern extremity of Jazīrat 'Ish bears 270°.

Khor al Bazm may also be approached from the northwards, passing westwards of Reedeim. The northern part of this channel has not been surveyed.

The passage into Khor al Bazm from either direction should not be attempted in conditions of poor visibility, as the low-lying islands are difficult to see, and the tidal streams run strongly in the channels and are unpredictable in rate and direction.】

Page 172.—【Lines 1-45 : *Delete.*】

Page 173.—Lines 30, 38, 41 and 44 : *For "Rashid" read "Ghasha"*

Line 33 : *For "Al 'Isha" read "'Ish"*

Line 40 : *For "Crabbe shoal" read "Niwat Ghasha"*

Views facing page : *Delete* upper view and *insert* new view of fort.

Page 174.—Lines 4 and 8 : *For "Jennings reef" read "'Ayayat Ghasha"*

Lines 5 and 48 : *For "Rashid" read "Ghasha"*

Lines 12-13 : *For "Lovejoy shoal" read "Rig bu Aitr"*

Lines 18 and 23 : *For "Bill islet" read "Jezirat Yabr"*

Line 27 : *For "Marshall islet" read "Halat al 'Alaq"*

Page 175.—Line 2 : *Delete "Crabbe" to "Rashid" and substitute "Niwat Ghasha and Jazīrat Ghasha"*

Lines 3 and 15 : *For "Harrison bank" read "Bu San'a"*

Line 4 : *For "Rashid" read "Gasha"*

Lines 5 and 8 : *For "Bill islet" read "Jezirat Yabr"*

Line 11 : *For "Lovejoy shoal" read "Rig bu Aitr"*

Lines 14-15 : *For "Crabbe shoal" read "Jazīrat Ghasha"*

Line 24 : *Delete "(Zirko)"*

Page 175 continued.

Lines 25-32 : *Delete* " 527 " to " southward " and *substitute* " 525 feet (160^m0) high, and is bare except for stunted brushwood on its southern part. The island is frequented by many sea birds in the breeding season. The low southern part of the island is fringed by a reef and a sand spit, which affords good landing on its eastern side, extends from the southern extremity.

Shoal patches, with less than 18 feet (5^m5) over them, extend about 2½ miles southward from the island ; shoals with depths of 6 fathoms (11^m0), or less, over them, extend southward to Bu Tini (page 171) "

Line 33 : *For* " 4½ fathoms (8^m2) " *read* " 5½ fathoms (10^m1) "

Lines 34-35 : *Delete* " between " to " is " and *substitute* " 300° distant 12 cables ; the anchorage is fairly "

Lines 37-39 : *Delete and substitute* :—

The tidal streams in the vicinity of the island are variable and are strongest at neaps, causing rippings like breakers at the southern end of the island.

Line 43 : *Delete* " dark-coloured "

Line 44 : *Delete* " See " to " 2837b "

Lines 48-53 : *Delete and substitute* :—

A spit, with a depth of 23 feet (7^m0) over its outer end, extends about 2½ miles southward from the southern extremity of the island.

Page 176.—Lines 4-7 : *Delete and substitute* :—

" of 154 feet (46^m9), its southern part being low. A reef fringes the southern part of the island and a spit, with depths of from 3½ to 5 fathoms (6^m4 to 9^m1) over it, extends about 2½ miles southward from the southern extremity."

Lines 8-9 : *Delete* " from " to " eastward " and *substitute* " 8 fathoms (14^m6), about 8 cables south-eastward "

Line 14 : *For* " south-eastern " *read* " southern "

Line 15 : *Add* :—There is another landing place, sheltered from winds westward of North, about 3½ cables southward of the north-eastern extremity of the island.

[Lines 17 to 54 :—*Delete and substitute* :—

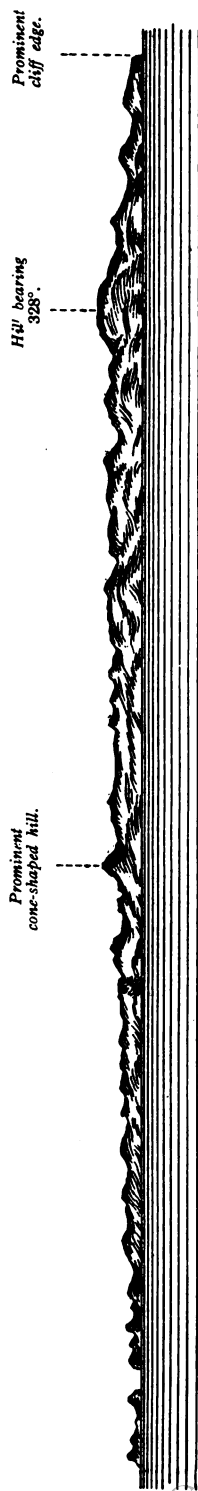
Jazirat 'Ardhana.—**Anchorage.**—Jazirat 'Ardhana, about 25 miles northward of Jazirat al Yas, is 215 feet (65^m5) high near its northern end, but its southern part is a plain. It is fringed by a reef except at its southern extremity, which terminates in a sandy spit, on the eastern side of which is the best landing.

Shoals with depths of from 9 feet to 18 feet (2^m7 to 5^m5) lie within 4½ miles northward, 2½ miles eastward and 3 miles southward of the island. This shoal area prevents any but shallow draught vessels closing the island from south-eastward, but it breaks the force of the shamal and fairly comfortable anchorage may be obtained in a depth of 7½ fathoms (13^m7), sand, with the summit of the island bearing 319° distant about 3½ miles. The island should be approached with caution however, as the depths decrease abruptly from 36 to 9 feet (11^m0 to 2^m7), and the shoals are not easily seen, even in calm weather.

A shoal, with a depth of 23 feet (7^m0), lies 7½ miles eastward of the island. Three small patches, with a least depth of 15 feet (4^m6), lie from 2½ to 3½ miles northward of the island.

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 " " " 35 of Supplement.



Jazirat Dalma.
 (Originals dated 1951.)

Page 176 continued.

Depths of less than 36 feet (11^{m0}) lie southward and eastward of the main shoal area described above.

Creagh shoal, a typical atoll formation with a least depth of 25 feet (7^{m6}), lies about 10 miles south-eastward of Jazirat 'Ardhana (*Lat.* 24° 47' N., *Long.* 52° 34' E.).

Jazirat Diyina.—Anchorage.—Jazirat Diyina, about 12 miles north-westward of Jazirat 'Ardhana, is flat and sandy and sparsely covered with scrub. The highest part is a detached black rock at its northern end, 12 feet (3^{m6}) high. The northern part of the island is fringed by a reef, extending as much as 4 cables offshore.

Anchorage may be obtained, in a depth of 5½ fathoms (10^{m1}), about 9 cables south-south-eastward of the southern extremity of the island; it is more sheltered from the shamal than might be expected from the small size of the island.

Two rocks, with depths, respectively, of 2 feet (0^{m6}) and 10 feet (3^{m0}), lie three-quarters of a mile north-westward and north-north-westward of the detached black rock described above.

Two 18-foot (5^{m5}) patches lie, respectively, 8½ miles northward and 4½ miles eastward of the island.

An extensive and irregular shoal, with depths of less than 36 feet (11^{m0}), lies from 6 to 15 miles northward to 15 miles eastward of Jazirat Diyina joining the 18-foot (5^{m5}) bank north-eastwards of Jazirat 'Ardhana.

Tidal streams.—The tidal streams are strong and unpredictable. They run mainly in north-easterly and south-westerly directions, but are much diverted in the vicinity of the islands, attaining a rate of over one knot at springs.]

Page 177.—[Lines 1-18: *Delete.*]

Line 21: *For* "about 40 feet (12^{m2})" *read* "from 8 to 9 feet (2^{m4} to 2^{m7})"

Line 23: *Delete* "a shoal" to "south-eastward" and *substitute* "depths of 3 fathoms (5^{m5}) extend about half a mile northward and southward"

[Line 36: *Add* :—A coral pinnacle with a depth of 8 feet (2^{m4}) lies about 2½ miles northward of Jazirat Shurā 'awa.]

[Lines 42 to 54: *Delete and substitute* :—

Jazirat Dalma.—Anchorage.—Off-lying shoals.—Jazirat Dalma lies about 15 miles north-westward of Jezirat Yas. Its northern part consists of a series of low hills, which from a distance appear as a tableland. The highest of these lies near the northern end and is 305 feet (93^{m0}) high. The southern part is low and sandy, and draws away to a long sand spit. A village with about 60 inhabitants is situated on the south-western side. It has a tower and several stone buildings, and was once a centre of the pearling industry but this has now declined. *See view facing page 177.*

Except off the sand spit at the southern end, the island is fringed with a reef extending from 2 to 4 cables offshore. An easy boat landing can be made on either side of the sand spit.

A good anchorage, with shelter from the shamal, can be obtained in a depth of about 9 fathoms (16^{m5}), with the southern tip of the island bearing 245°, distant 11 cables. Small vessels can anchor off the village on the western side.

Page 177 continued.

Halat Masuma, a reef that dries, and on which lie some shifting sand cays, lies about $1\frac{1}{2}$ miles to the southward. There is a boat passage between it and Jezirat Dalma.

There are numerous shoals in the vicinity of Jezirat Dalma. Soundings give little or no indication of dangers. Under good conditions of light and sea, shoals with depths of less than 5 fathoms (9^m1), normally show up, but this cannot be relied on.

Chart 3707.

Haslam patches extend about 10 miles south-south-eastward of Jezirat Dalma, nearly meeting a series of shoals extending north-north-westward from Jezirat Zabut. There is a channel about $1\frac{1}{2}$ miles wide between the extremity of Haslam patches and Dalrymple rock, over which there is a least depth of 7 feet (2^m1).

Coast.—From Jabal Dhanna (page 172) the coast trends about 18 miles west-south-westward to Jabal Baraka, and is fringed by reefs which extend up to $1\frac{1}{2}$ miles offshore. The shore is sandy and low-lying and is covered by hummocks and desert grass. A group of hills, the highest of which rises to an elevation of 170 feet (51^m8), lies about 6 miles west-south-westward of Jabal Dhanna.

Jezirat Masat is an island connected with the mainland by a sand spit which dries at low water. Steep-sided flat-topped hills on the island rise to elevations of from 150 to 163 feet (45^m7 to 49^m7). Jezirat Zabut is a remarkable small island 136 feet (41^m5) high, shaped like a boot with the toe pointing northward. There is a stone cairn on its highest point. Both these islands are fringed by coral reefs that dry, and landing is difficult except at high water. They are uninhabited.

Halat Idai lies about 4 miles northward of Jezirat Zabut and consists of drying sand on a coral reef. Shoals extend northward and north-north-westward from here, terminating in Beckford shoal about $6\frac{1}{2}$ miles northward and Dalrymple rock about 5 miles north-westward. The least depth over Beckford shoal is 9 feet (2^m7).

Jabal Barka (*Lat. $24^\circ 00' N.$, Long. $52^\circ 20' E.$*) rises to an elevation of 210 feet (64^m0) and is composed of reddish sandstone, but blown sand covers all but the steepest slopes. On the seaward side it rises steeply from cliffs about 20 feet (6^m1) high. Jabal Wutaid lies about 5 miles south-south-westward of Jabal Baraka and rises to an elevation of about 147 feet (44^m8). It is the most westerly of a low range of coastal hills which extends from Ras al 'Aish (page 172).

Webb rock, with a depth of 6 feet (1^m8), lies about $6\frac{1}{2}$ miles north-westward of Jabal Baraka. Soundings give no indication of its proximity, nor can it be seen even in good conditions except at very close range, whence the dark brown coral can be distinguished. There is no sand on it to give the usual warning of lighter-coloured water, and it should therefore be given a wide berth.

The district of Sabkha Matti extends from Jabal Wutaid to Ras as Sila, about 28 miles west-north-westward. It is mostly desolate, low, and partly swampy. For about 6 miles from Jabal Baraka the coast trends west-south-westward and is fringed by a reef which extending as much as half a mile offshore; beyond this point the coast is imperfectly surveyed and foul ground is reported to extend from 4 to 6 miles offshore. A detached 18 foot (5^m5) patch lies about $4\frac{1}{2}$ miles offshore, $14\frac{1}{2}$ miles "

[Page 178.—Lines 1-49: *Delete.*]

Page 179.—[Line 2: *Delete.*]

Line 7: *After* "Sila'" *insert* "to Ras Sarab"

Line 13: *For* "About" *read* "At Ras Sarab, about"

Lines 16, 17, 21 and 52: *For*: "Masheirib" *read* "Mashairif"

Line 17: *For* "1½" *read* "2½"

[Line 19: *Add*:—A patch with a least depth of 9 feet (2^m7), lies about one mile south-eastward of Kassar al Baya.]

Lines 22-23: *For* "three islets" *read* "two islets and a drying sandbank lie"

Lines 23-24: *Delete* "small" to "islet" and *substitute* "20-foot (6^m1) patch lies about 7 cables south-eastward of the drying sandbank"

Line 26: *For* "southern islet" *read* "drying sandbank"

Line 28: *For* "6 miles northward and" *read* "4½ miles north-westward and northward and 5½"

Lines 31-32: *For* "al 'Odaid and Rak" *read* "Hadaid and Rig"

Lines 42-43: *Delete* "from" to "6^m1)" and *substitute* "about 36 feet (11^m0)"

After line 45 *insert*:—

A 14-foot (4^m3) patch lies about 3 miles northward of Mahamaliya.

Line 49: *For* "half a mile" *read* "a cable"

Line 50: *Add*:—Rig Musfair lies about 3¼ miles north-north-eastward of Umm al Hatab.

Lines 51-52: *Delete* "2" to "south-eastward" and *substitute* "2½ miles eastward"

Page 180.—Lines 11, 18, 23 and 36: *For* "Masheirib" *read* "Mashairif"

Line 54: *For* "Fareijat" *read* "Faraijdat"

Page 181.—Line 8: *For* "Ghāra" *read* "Ghagha"

Lines 23-26: *For* "Miyamatentin" *read* "Mahayimat islands"

Lines 24 and 25: *For* "Fareijat" *read* "Faraijdat"

Lines 29 and 35: *For* "Kafāi" *read* "Gaffai"

Line 39: *After* "from" *insert* "Rig Umm el Umbar"

Page 182.—Lines 34-[54]**: *Delete* and *substitute*:—
*Charts 3787, 3707 and 3950.***

Coast. — Dangers. — Light. — Beacons. — Light-buoy. — Mooring buoy.—[Off-lying dangers.—] Jabal and Niqyān is an irregular range of white sand hills, up to 150 feet (45^m7) high, bordering the coast for about 18 miles north-north-eastward of the northern entrance point of Khor al'Odaid; the northernmost of these hills, Nagā abu 'Anfūs, is 138 feet (42^m1) high. About 3 miles farther north-eastward, at Umm Said, the coast recedes, forming a bight known as Umm Said bay, whence it continues north-north-eastward about 4 miles to Ras al 'Alāj (*Lat.* 25° 01' N., *Long.* 51° 28' E.), which is marked by a steel framework tower 50 feet (15^m2) high, with a black square topmark.

This part of the coast is low-lying and large areas near Umm Said bay are liable to inundation at very high tides. Fasht al Arrif extends about 7 miles south-eastward from the coast about 1½ miles south-

Page 182 continued.

ward of Ras al 'Alāj. Al Bushairiyah, a low islet on which fishermen's huts are occasionally erected, lies on the south-western side of the reef about $1\frac{1}{2}$ miles offshore; a steel framework tower, 50 feet (15^m2) high, with a black square topmark, stands on the islet.

A number of buildings exist near the coast in the vicinity of Umm Said; amongst these there is a distillation plant with a conspicuous black chimney, 40 feet (12^m2) high, situated about $1\frac{1}{2}$ miles south-westward of Al Bushairiyah.

[A jetty extends about $1\frac{1}{2}$ cables north-north-eastward from a position close westward of the distillation plant, forming a boat harbour.]

There is a mooring buoy about half a mile south-eastward of the conspicuous chimney.

A conical light-buoy, painted black and exhibiting a *white quick-flashing* light, is moored about $2\frac{3}{4}$ cables south-eastward of the conspicuous chimney.

A light is exhibited from a mast off the north-eastern extremity of the sandy spit extending north-eastward from the reef on which stands the conspicuous chimney.

Fasht al Arrif is marked on its eastern, southern and south-western sides by beacons as follows:—

Jessoura beacon, a steel framework tower, 50 feet (15^m2) in height, with a black square topmark, stands on the eastern side of the reef, nearly $3\frac{1}{2}$ miles south-eastward of Ras al 'Alāj; Shahin beacon, consisting of a small iron tripod surmounted by a pole and standing on a rock foundation, is situated about $5\frac{1}{4}$ miles south-south-eastward of Ras al 'Alāj; a beacon, consisting of a pole on a rock foundation, stands about $1\frac{1}{2}$ miles southward of Shahin beacon; Nasr beacon, a similar structure to Jessoura beacon, stands near the south-eastern end of the reef, about $2\frac{1}{2}$ miles southward of Shalin beacon; Ghazal beacon, also similar, stands on the south-western side of the reef, about midway between Nasr and Al Bushairiyah beacons.

[A shoal patch, with a depth of 4 feet (1^m2), lies about $6\frac{1}{2}$ miles north-north-eastward of the north-eastern summit of Jabal al 'Odaid and $1\frac{1}{2}$ miles offshore; an area, with depths of from 6 to 18 feet (1^m8 to 5^m5), lies about 2 miles north-eastward of this shoal, and in the middle of this area there is a large coral head with depths of less than 6 feet (1^m8).

Las Hat is a group of three flat-topped islets and two detached rocks lying about $14\frac{1}{2}$ miles north-eastward of Jabal al 'Odaid (*Lat. $24^\circ 35' N.$, Long. $51^\circ 25' E.$*). These islets, which are about 25 feet (7^m6) high, are bordered by light-coloured cliffs. A shoal, with a depth of 10 feet (3^m0) lies about half a mile south-eastward of the south-western islet of the group; an extensive area, with a depth of 9 feet (2^m7), lies about $3\frac{1}{2}$ miles southward of the same islet. A shoal, on which there is a large coral head with a depth of less than 6 feet (1^m8), lies about 4 miles east-south-eastward of Las Hat, and a large area, with a depth of 8 feet (2^m4), lies about $2\frac{1}{2}$ miles farther south-eastward; there is a channel with a least depth of 26 feet (7^m9) between these two shoals. About $1\frac{1}{2}$ miles north-eastward of Las Hat there is a small 15-foot (4^m6) patch, and $1\frac{1}{2}$ miles farther in that direction, there is a large sand bank that dries. An 18-foot (5^m5) patch lies about 5 miles east-by-northward of Las Hat. A shoal, with a depth

Page 182 continued.

of 3 feet (0^m9), which is easily distinguished by the discoloured water over it, lies about 3 miles northward of Las Hat. An 18-foot (5^m5) shoal, on the northern end of which there is a coral head with a depth of less than 6 feet (1^m8), lies about 1½ miles offshore 6½ miles north-westward of Las Hat and between them is an isolated patch with a depth of 20 feet (6^m1). Westward of Las Hat there is a large area of deep water, but eastward as far as the southern end of Fasht al 'Odaid the depths are irregular, ranging from 4 to 14 feet (7^m3 to 25^m6). The southern and western limits of Fasht al 'Odaid are bounded by a coral reef covered by an extensive sand bank, much of which dries; owing to the light green colour of the water, it is clearly visible at all states of the tide.

About 5 miles southward of Fasht al 'Odaid lies Machāsib (*Lat.* 24° 39' N., *Long.* 51° 49' E.), a low flat island that is fringed by a reef extending about 1½ miles northward of the islet. A channel, about 2 miles wide, lies between these two reefs, which leads northward and north-eastward separating Fasht al 'Odaid from Halat Dalma. Halat Dalma, about 12 miles north-eastward of Machāsib is an extensive shoal in the middle of which lies a large coral reef, covered with patches of sand, that dries. The above-mentioned channel divides south-westward of Halat Dalma, one branch leading southward of that shoal. The north-eastern branch of the channel leads round the western and northern edges of the reef into a large open area between Halat Dalma and Jezirat Shurā Awah. There are general depths of from 27 to 51 feet (8^m2 to 15^m5) in the channel, but a 12-foot (3^m7) shoal lies in mid-channel between Fasht al 'Odaid and Halat Dalma.

The south-western extremity of Rig Karcinein lies about 5½ miles north-westward of Halat Dalma.

The channel southward of Halat Dalma leads eastward into deep water, but an 18-foot (5^m5) shoal lies across the eastern entrance.

Neither of the channels described above should be attempted without local knowledge, as the water is opaque and the usual signs of discoloured water marking the limits of the shoals are lacking.】

Page 183.—【Lines 1-54】: *Delete and substitute :—*
Charts 3707, 3787 and 3950.

South-westward of Fasht al Arrif (page 182) there is an extensive bank with depths of from 20 to 30 feet (6^m1 to 9^m1) over it. Between the north-eastern end of this bank and the south-western part of Fasht al Arrif there is a passage, about half a mile wide between the 5-fathom (9^m1) lines, obstructed in its centre by a shoal with a depth of 26 feet (7^m9) over it; the buoyed channel to Umm Said lies south-westward of this shoal.

Fasht al Arrif dries in patches and under most conditions shows up well. A bank, with a depth of 3½ fathoms (6^m4) at its southern end and depths of 2½ and 3 fathoms (4^m1 and 5^m5) about half a mile farther northward, extends about 1½ miles south-south-westward from the southern end of the reef.

A bank, on which there are sunken rocks and depths of less than 3 fathoms (5^m5), lies within about one mile north-eastward of Nasr beacon; from this bank depths of less than 5 fathoms (9^m1) extend southward for about 3 miles.

Page 183 continued.

The channel between Fasht al Arrif and Fasht al 'Odaid is about 4 miles wide, but is reduced to a width of about $2\frac{1}{4}$ miles between the 5-fathom (9^m1) lines.

From the vicinity of Ras al 'Alâj, a bank, with general depths of less than 6 fathoms (11^m0), extends about 9 miles south-eastward to within 2 miles of the off-lying reef north-eastward of Fasht [al 'Odaid]; on it are numerous heads with depths of from $2\frac{1}{2}$ to $4\frac{1}{2}$ fathoms (5^m0 to 8^m7); heavy overfalls at certain times are a feature of this area. Through the bank, a narrow channel, known as the Outer channel, about 6 miles in length, with its northern end about $4\frac{1}{4}$ miles eastward of Ras al 'Alâj, runs in a southerly direction, with a least depth of 33 feet (10^m1) at its northern end. The general depths in the fairway of the channel are from 6 to 7 fathoms (11^m0 to 12^m8), but detached patches with depths of from 34 to 35 feet (10^m4 to 10^m7) exist.

Under favourable conditions, shoals with depths of less than 6 fathoms (11^m0) can generally be distinguished by the lighter colour of the water over them, but this is not an indication to be relied upon as some shoals appear as darker patches and others give no indication of their existence.

The Outer channel, referred to above, in the approach to Umm Said anchorages, is marked by light-buoys, numbered in a southerly direction. The light-buoys marking the western side of the channel are black conical and numbered 1, 3, 5, 7 and 9: those on the eastern side of the channel are red can and numbered 2, 4, 6, 8 and 10: the colours and characteristics of the lights exhibited by these buoys can best be seen from the chart.

In 1949, the least depth in the Outer channel was 35 feet (10^m7), and was to be found about $2\frac{1}{2}$ cables southward of Nos. 1 and 2 light-buoys.

The channel south-eastward of Fasht al Arif, and the channel leading northward and westward to Umm Said anchorages, situated about 3 miles south-westward of Umm Said, is known as the Inner channel; it is marked by light-buoys as follows:—

“S.E. Arrif” black conical light-buoy, exhibiting a *white group flashing* light showing *three flashes every fifteen seconds*, is moored about $1\frac{1}{4}$ miles east-south-eastward of Nasr beacon, which marks the south-eastern side of Fasht al Arrif.

“S. Arrif” conical light-buoy, painted in black and white chequers and exhibiting a *white flashing* light *every ten seconds*, is moored about $2\frac{1}{4}$ miles south-south-westward of Nasr beacon.

The starboard side of the channel leading northward from “S. Arrif” light-buoy is marked by Nos. 1 and 3 black conical light-buoys: the port side of the channel is marked by Nos. 2 and 4 red can light-buoys; the colours and characteristics of the lights exhibited by these light-buoys may best be seen from the chart.

About $6\frac{1}{2}$ cables north-westward of Nos. 3 and 4 light-buoys, of the Inner channel, is moored a turning light-buoy, can shaped and painted in red and white chequers, exhibiting a *red group flashing* light showing *two flashes every ten seconds*.

Umm Said anchorages are marked by three light-buoys. Of these, “E. Anchorage” red can light-buoy, exhibiting a *red flashing* light *every ten seconds*, is moored about $3\frac{1}{4}$ miles south-eastward of Umm

Page 183 continued.

Said; "N. Anchorage" black conical light-buoy, exhibiting a *white flashing light every two seconds*, is moored about 3 miles south-south-westward of Umm Said; and "S. Anchorage" red can light-buoy, exhibiting a *red flashing light every six seconds*, is moored nearly $4\frac{1}{2}$ miles south-westward of Umm Said.

In 1949, the least depth in the Inner channel and approach to Umm Said anchorages was 38 feet (11^m6), and was to be found between Nos. 3 and 4 light-buoys.

Tides and tidal streams.—The tides in this area have a large diurnal component, and at times only one high water and one low water occur during the twenty four hours. This feature is more pronounced at Umm Said than at Dōha (page 185). Meteorological conditions may affect the tides by as much as plus or minus 2 feet (0^m6).

At the northern end of the Outer channel, where the limiting depth of 35 feet (10^m7) exists, the time of high water is approximately one hour before that of Umm Said, and the rise of tide is less than at Umm Said, comparing more closely with Dōha.

Westward of Rig (Rak) Kareinein (*see* page 184) the tidal streams set nearly parallel to the shore and do not much exceed a rate of one knot. In the channel between Fasht al Arrif and Fasht Hadaid the streams set north-north-eastward and south-south-westward and attain a rate of more than 2 knots at springs; south-westward of Fasht al Arrif there is little tidal stream.

In the Outer and Inner channels of the approach to Umm Said the flood stream generally sets south-south-westward, and the ebb stream north-north-eastward, the rate being up to 2 knots at springs. Cross sets will consequently be experienced in these channels, more particularly in the northern part of the Outer channel and in the vicinity of "S.E. Arrif" light-buoy, and also in the Inner channel, between "S. Arrif" light-buoy and the turning light-buoy.

Directions.—Caution.—The approach from northward to the Outer channel is described on page 184.

Having passed between Nos. 1 and 2 Outer channel light-buoys, a vessel should steer $173\frac{1}{2}^{\circ}$, passing between Nos. 3 and 4 light-buoys, to Nos. 5 and 6 light-buoys. From there a course 193° should be steered to Nos. 7 and 8 light-buoys, and 174° to Nos. 9 and 10 light-buoys.

From a position about midway between Nos. 9 and 10 light-buoys the vessel should steer about 157° to leave "S.E. Arrif" light-buoy to starboard, thence 217° to leave "S. Arrif" light-buoy also to starboard.

After rounding "S. Arrif" light-buoy the vessel should steer 335° to pass close westward of No. 1 Inner channel light-buoy, thence 003° to pass close eastward of No. 2 Inner channel light-buoy. From here the vessel should steer about 313° so as to pass between Nos. 3 and 4 light-buoys, and should maintain this course to pass close north-eastward of the turning light-buoy. From the turning light-buoy the vessel should steer about 260° for the anchorage, passing northward of "E. Anchorage" light-buoy.

In 1949, depths in the Outer and Inner channels were such that vessels drawing 29 feet (8^m8) or less could navigate them at any state of the tide, the draught of vessels leaving Umm Said being controlled

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by the depth of water to be expected over the 35-foot (10^m7) patch at the northern end of the Outer channel.

Vessels passing through the Outer channel were advised to proceed at moderate speed when passing close to shoal patches, to avoid "draw down" and "canal action." On the outward passage from Umm Said, it was recommended that speed should be reduced before rounding the turning light-buoy, and that the passage of the Inner channel should be made at slow speed to avoid increase of draught due to "draw down" and "heel under helm" action.

Anchorage.—Good anchorage may be obtained about 4 miles south-south-westward of Umm Said and from half a mile to one mile offshore, in depths of from 7 to 8 fathoms (12^m8 to 14^m6), or in less depths nearer Umm Said (*Lat. 24° 57' N., Long. 51° 35' E.*); in this anchorage there is good shelter from the shamāl, and the off-lying reefs afford a considerable degree of protection from the nashi; small craft can find good shelter in Umm Said bay, care being taken to avoid the reef, and the rocks which dry 6 feet (1^m8), lying within 4 cables of Umm Said.

Coast.—**Dangers.**—**Buoyage.**—**Beacons.**—From Ras al 'Alāj the coast trends northward about 7½ miles to Jabal al Waqra (Wakrah), a brown level-topped rocky hill, 74 feet (22^m6) high, and consists of a low sandy or stony desert fringed by a coastal reef which extends from half a mile to 1½ miles offshore, the 3-fathom (5^m5) contour running nearly parallel to the coast at a distance of from 1½ to 2½ miles. Umm al Hul, a ruined and deserted village, situated about 3½ miles northward of Ras al 'Alāj, stands on the western side of a narrow almost landlocked bay which dries at about half tide. Numerous rubble fish traps lie close inshore between Umm al Hul and Jabal al Waqra.

A steel framework tower, 50 feet (15^m2) in height, with a black square topmark, is situated at Umm al Hul; a similar structure stands near the summit of Jabal al Waqra.

"Hul" pillar light-buoy, painted red with the letter H in white on two sides of its superstructure and exhibiting a *white group flashing* light showing *four flashes every twenty seconds*, is moored about 5 miles south-eastward of Umm al Hul, and about 2 cables westward of a shoal with a depth of 33 feet (10^m1) over it.

Abreast this part of the coast and at a distance of from 6 to 8 miles offshore an extensive shoal area lies westward of Rig Kareinein, with depths of less than 6 fathoms (11^m0) over it, on which there are heads with depths of from 4 to 5 fathoms (7^m3 to 9^m1) in the northern part of the area and of from 2 to 3½ fathoms (3^m7 to 5^m9) in the southern part.

"Waqra" pillar light-buoy, painted red with the letter W in white on two sides of its superstructure and exhibiting a *white group flashing* light showing *three flashes every twenty seconds*, is moored about 4½ miles eastward of Jabal al Waqra.

From Jabal al Waqra the coast, which is low, trends northward about 7½ miles to Ras Abu al Mishūt, a low rocky point not easily identified from seaward; within the coast, the desert rises gradually to heights of from 30 to 50 feet (9^m1 to 15^m2) about 3 to 4 miles inland. A clump of trees in a garden about 3½ miles westward of Ras Abu al Mishūt is conspicuous.

Page 183 continued.

A steel framework tower, 50 feet (15^m2) in height, with a black square topmark, stands about 4½ cables south-westward of Ras Abu al Mishūt.

Al Waqra (Wakrah), an extensive but largely ruined and deserted town, is situated in a shallow bight in the coast about one mile north-north-westward of Jabal al Waqra ; a fort with a square tower and a flagstaff stands near the shore in the northern part of the town, with a minaret a short distance south-westward. There is a small stone wharf in front of the fort at which small dhows can berth at high water. Off the northern end of the town a well sheltered but drying boat harbour, which can be entered near high water, is formed between the coast and a high narrow bank of sand which extends northward about one mile to the coast. A track, which can be used by motor traffic, runs from Al Waqra through Dōha, about 8½ miles north-north-westward, to the western side of the Qatar peninsula.

Between Jabal al Waqra and Ras Abu al Mishūt the coast is fronted by a bank, with depths of less than 3 fathoms (5^m5) over it, to a distance of from 5 to 7 miles ; numerous rubble fish traps lie close inshore. North-eastward of Al Waqra an area of thick weed extends about half a mile offshore. Two 3½-fathom (6^m9) patches lie about 3 miles east-north-eastward of Jabal al Wawra.

Several detached patches, with depths of from 5 to 5½ fathoms (9^m1 to 10^m1) over them, lie eastward of Ras Abu al Mishūt at distances of from 4½ to 6½ miles ; two shoals, with depths of 5½ fathoms (10^m5) over them lie about 4 miles farther eastward, and two others, with depths of 5½ and 5¾ fathoms (10^m1 and 10^m5) over them, respectively, lie about 13½ and 14½ miles east-north-eastward of the point.

Chart 3950.

A bank, with a depth of 5½ fathoms (10^m1) over it, lies about 16 miles east-north-eastward of Jazīrat 'Alya ; a detached 6-fathom (11^m0) patch lies about 4 miles north-north-eastward of this bank.

A 5½-fathom (10^m1) patch lies on a detached bank, with depths of 10 fathoms (18^m3), or less, over it, about 28 miles east-north-eastward of Jazīrat 'Alya.

Page 184.—Lines 1-54 : *Delete and substitute :—*
Charts 3787 and 3950.

Rig (Rak) Kareinein, an extensive area of shoal water, extends about 20 miles northward from a position close northward of Fasht Hadaid. A beacon, consisting of a circular rubble tower, 12 feet (3^m7) high, stands near the eastern side of Rig Kareinein and about 19 miles eastward of Jabal al Waqra ; within a radius of one-half to, three-quarters of a mile of this tower there are numerous rocks, awash or dry at low water ; this patch of rocks is known as Halat Bul Khaipān. There may be other drying patches on Rig Kareinein which have not been closely examined. There is a narrow channel, with depths of from 7 to 9 fathoms (12^m8 to 16^m5), between Rak Kareinein and Fasht Hadaid. Except on its western side the limits of Rig Kareinein are not accurately known and vessels should give it a wide berth.

"Mishūt" light-float, painted black with the letter M in white on each side of the superstructure and exhibiting a *white group*

Page 184 continued.

flashing light showing *two* flashes *every twenty seconds*, is moored off the north-western part of Rig Kareinein, about 10 miles eastward of Ras Abu al Mishūt.

"Kareinein" light-float, painted black with the letter K in white on each side of the hull and exhibiting a *white flashing* light *every ten seconds*, is moored off the northern part of Rig Kareinein, about 18½ miles north-eastward of Ras Abu al Mishūt.

Anchorage.—Directions.—Tidal streams.—Large vessels can anchor in depths of from 7 to 8 fathoms (12^m8 to 14^m6) about 3 miles offshore eastward of Jabal al Waqra, taking care to avoid the two 3½-fathom (6^m9) shoals about 3 miles east-north-eastward of that summit; smaller vessels can anchor in convenient depths closer inshore. There is, however, very little shelter from the prevailing winds off this coast.

A vessel approaching the anchorage off Al Waqra, or that southward of Umm Said (page 183), from eastward, should sight Jazīrat Halul (page 188) and, having brought it to bear 055½°, astern, steer to make good 235½°, towards the town of Al Waqra, keeping the island bearing 055½° passing close northward of "Kareinen" light-float and about 2½ cables north-westward of "Mishūt" light-float. Jabal al Waqra and the clump of trees westward of Ras Abu al Mishūt will usually be the first land objects sighted when about 12 miles distant; and the town of Al Waqra should be visible ahead soon after.

Chart 3787.

When "Mishūt" light-float bears 090°, and the fort with the flag-staff at Al Waqra is distant 11½ miles, bearing 235½°, course should be altered to make good 211° towards "Waqra" light-buoy, and when that light-buoy is abeam and the 50-foot (15^m2) steel framework tower on Jabal al Waqra bears 266°, distant 4½ miles, course may be shaped for the desired anchorage off Al Waqra.

A vessel continuing southward to Umm Said anchorage from "Waqra" light-buoy should steer 180° for about 6½ miles to the position of "Hul" light-buoy, when the 50-foot (15^m2) tower on Ras al 'Alāj should bear 246½°, distant about 4½ miles. The vessel should then steer 169° for about 2 miles towards Nos. 1 and 2 Outer channel light-buoys and, when the tower on Ras al 'Alāj bears 272°, distant about 4½ miles, the vessel will then be in the entrance to the Outer channel, and the directions given on page 183 should be followed.

Chart 3950.

Tidal streams in the offing set north-north-eastward and south-south-westward, and attain a maximum rate of about 1½ knots; they are diurnal in character. For the tidal streams westward of Rak Kareinein *see* page 183.

Charts 3787 and 3950.

Approaches to Dōha.—Shoals.—[Light-buoys.]From Ras Abu al Mishūt the coast trends north-westward and westward about 4½ miles and thence northward about 6½ miles to abreast Jazīrat 'Alya, forming a bay with the town of Dōha at its southern end. The land on the southern and western sides of the bay consists of undulating desert rising to heights of from 40 to 50 feet (12^m2 to 15^m2) a few miles inland. There is no cultivation near-by except two small

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gardens near the town ; the most easterly of these, on rising ground, contains the conspicuous clump of trees mentioned on page 183. The trees and buildings of the village of Markhiyah, on high ground about 3 miles north-westward of Dōha, are distinguishable from seaward.

Jazīrat 'Alya, about 8 miles north-north-westward of Ras Abu al Mishūt, is a barren sandy islet with a small hillock, 25 feet (7^m6) high, at its south-eastern end ; it is separated from the coast westward by a boat channel in which the depths, westward of Jazīrat as Sāfiya (page 185), are from one to 4 feet (0^m3 to 1^m2) at low water. The channel is used by dhows and small craft but requires local knowledge.

Reefs and shoal water extend 4 miles eastward and 2½ miles northward from Ras Abu al Mishūt ; northward of Dōha (*Lat. 25° 17' N., Long. 51° 32' E.*) it extends to as much as 10 miles offshore and the bottom may sometimes be seen before the land is sighted.

[A light is exhibited, at an elevation of 27 feet (8^m2), from Dōha beacon situated on the northern edge of the reefs about 2¼ miles northward of Ras Abu al Mishūt.]

[A light-buoy, exhibiting a *white flashing light every twelve seconds*, is moored about 5 miles eastward ; a light-buoy exhibiting a *white flashing light every six seconds*, is moored about 3½ miles east-north-eastward ; and a light-buoy exhibiting a *white flashing light every three seconds*, is moored about 2½ miles north-north-eastward of Ras Abu al Mishūt. These light-buoys should be left close on the star-board hand when approaching Dōha]

Page 185.—Lines 1-54 : *Delete and substitute :—*
Charts 3787 and 3950.

A bank, with depths of less than 3 fathoms (5^m5) over it, extends up to 10 miles offshore between Ras Abu al Mishūt and Jazīrat 'Alya (*Lat. 25° 24' N., Long. 51° 34' E.*) ; on this bank there are depths of 8 feet (2^m4) about 5 miles north-north-eastward of Ras Abu al Mishūt and of from 2 to 3 feet (0^m6 to 0^m9) about 3 miles east-south-eastward of Jazīrat 'Alya.

Two detached 3-fathom (5^m5) patches, about 7 cables apart, lie about 7½ miles eastward of Jazīrat 'Alya.

A 5½-fathom (10^m1) patch lies on a bank, with 10 fathoms (18^m3), or less, over it, about 28 miles east-north-eastward of Jazīrat 'Alya, as mentioned on page 183. A bank, with a depth of 43 feet (13^m1) over it, lies about 11 miles eastward of Jazīrat 'Alya.

Chart 3787.

Dōha harbour.—**Beacons.**—Dōha harbour lies north-westward of Ras Abu al Mishūt and is entered between the reefs extending northward from that point and south-eastward from Jazīrat as Sāfiya, about 4½ miles north-westward.

Jazīrat as Sāfiya is low, sandy and covered with scrub ; from its eastern and western ends, respectively, sand spits extend south-eastward and south-westward ; between the extremity of the latter sand spit and an extensive area of reef and very shoal water which extends off the western side of the bay, there are depths of 2 fathoms (3^m7), and over. A circular masonry beacon, 6 feet (1^m8) high, marking the south-western side of the reefs and fish traps which extend off them, is situated about half a mile north-westward of the island.

Page 186.—Lines 1-54 : *Delete and substitute :—*

Chart 3787.

Ras Abu Abūd (Bu Abūt), about $2\frac{1}{2}$ miles north-westward of Ras Abu al Mishūt (*Lat.* $25^{\circ} 17' N.$, *N.*, *Long.* $51^{\circ} 37' E.$), is low, and off the intervening coast a rocky shallow reef extends about 2 miles north-eastward with numerous rubble fish traps close inshore.

A reef, on which there are drying patches and depths of less than 6 feet (1^m8), rock and sand, extends about $1\frac{1}{2}$ miles southward and eastward from the eastern end of Jazīrat as Saffiya, between which and Dōha beacon a channel 3 cables wide leads into the harbour.

Ras an Nisa'a (Nessa), about $1\frac{1}{2}$ miles westward of Ras Abu Abūd, is a low, rocky, projecting point with numerous buildings in its vicinity ; a shallow spit extends about 3 cables northward from it. In the bay, westward, there are three shoal patches.

Charts 3787 and 3950.

Tidal streams.—**Anchorage.**—**Directions.**—The tidal streams in the offing are described on page 184. In the vicinity of Dōha beacon at the entrance to the harbour, a marked set of the tidal stream in a direction opposite to that running in the offing is sometimes experienced.

Anchorage may be obtained about 6 miles eastward of Ras Abu al Mishūt, in depths of from 7 to 8 fathoms (12^m8 to 14^m6) by vessels which are unable to enter Dōha harbour.

In Dōha harbour anchorage may be obtained, in depths of from 3 to $3\frac{1}{2}$ fathoms (5^m5 to 6^m4), with Dōha fort (page 187) bearing 235° , distant about 13 cables, or in the centre of the harbour, in depths of from $3\frac{1}{2}$ to 4 fathoms (6^m4 to 7^m3), about $1\frac{1}{2}$ miles northward of Ras Abu Abūd. The anchorage is well sheltered, except from north-east winds, and the holding ground is good, being sand and mud.

A vessel approaching Dōha from northward should steer parallel to the coast keeping in depths of from 5 to 6 fathoms (9^m1 to 11^m0). For a distance of about 20 miles northward of Dōha shoal water extends so far from the coast that the mainland may not be sighted until a vessel is in the vicinity of the harbour. Jazīrat 'Aliya may, however, be sighted, westward, at a distance of 10 miles. When Dōha fort bears 255° course may be altered for it, passing over the bank eastward of the harbour ; this approach, in 1947, had not been closely surveyed but was believed to carry a least depth of 12 feet (3^m7). When Dōha beacon bears 270° , course should be altered to 283° to pass $2\frac{1}{2}$ cables northward of it, and when abeam a vessel should steer 250° for the anchorage.

A vessel approaching Dōha from north-eastward or eastward should sight Jazīrat Halūl (page 188) and, having brought it to bear $055\frac{1}{2}^{\circ}$ astern, steer to make good $235\frac{1}{2}^{\circ}$, keeping the island bearing $055\frac{1}{2}^{\circ}$.

The directions for the approach to "Mishūt" light-float, as given on page 184, should now be followed, and the course $235\frac{1}{2}^{\circ}$ continued, until about $3\frac{1}{2}$ miles south-westward of that light-float. Jabal al Waqra and the clump of trees westward of Ras Abu al Mishūt will usually be the first land objects sighted (*see* page 184), and when the clump of trees bears 279° , distant about $10\frac{1}{2}$ miles, course should be altered to 303° ; when Dōha beacon bears 270° the directions given above should be followed. The least depth on this approach is 12 feet (3^m7).

Page 187.—Lines 1-54 : *Delete and substitute :—*
Chart 3787.

Dōha town.—This town, situated on the southern side of Dōha harbour, is the capital of the Qatar peninsula and had a population, in 1947, of about 12,000.

Dōha fort (*see view facing this page*) situated about one mile westward of Ras an Nisa'a (*Lat. 25° 17' N., Long. 51° 33' E.*), is of a light colour and conspicuous ; it is a very large square court-yard type of building with towers at its corners resembling square houses with colonnades and verandahs ; in the centre of its north-western wall is a round tower. A flagstaff, 93 feet (28^m3) high, stands on rising ground close northward, and a white mosque with a minaret stands a short distance south-eastward of the fort.

The Shaik's palace, situated about 3½ cables south-eastward of the extremity of Ras an Nisa'a, is a large building with many colonnades, and an open balustrade round its roof, and is easily identified from the harbour ; between the palace and Ras an Nisa'a a minaret having much the appearance of a lighthouse is also a useful mark. There are several other large buildings in the town, some with flagstaffs, all very similar to each other in appearance.

Landing can be effected in boats of shallow draft at the Custom-house jetty, situated about 9 cables westward of Ras an Nisa'a. Numerous local craft will be found at anchor off this jetty which practically dries at low water. Many dhows call at this port, but steam vessels only two or three times a year, up to 1947.

There is a small airfield situated close northward of the ruined village of Aneiza, about 3 miles north-north-westward of Dōha fort.

No fuel or other stores are available.

There is an American mission hospital with 28 beds near the Custom-house jetty. There are no quarantine regulations.

Trade.—The chief exports are gutch, fish and pearls ; imports are food, timber and manufactured goods.

Page 188.—Lines 1-54 : *Delete and substitute :—*
Charts 3950, 3707.

Jazīrat Halūl.—**Light.**—This island, situated just within the edge of the Great Pearl bank (page 167), about 50 miles east-north-eastward of Ras Abu al Mishūt (*Lat. 25° 17' N., Long. 51° 37' E.*), is hilly and rises to an elevation of 202 feet (61^m6). It is fringed by a reef which, in places, extends about 3 cables offshore ; shoals extend about 4 cables north-westward and north-eastward from the island, and depths up to 6 fathoms (11^m0) exist up to 6 cables from its southernmost part.

The island, which is visited by the pearling fleets, is barren but swarms with birds, chiefly cormorants, and in the season is covered with nests and young birds.

Depths in the vicinity of the island give little warning of its proximity, and there are tide rips around it, particularly on its southern side. A 6-fathom (11^m0) patch the existence of which is doubtful, lies about 14 miles north-westward of Jazīrat Halūl and detached banks, with depths of 7 fathoms (12^m8) over them, lie about 13½ miles south-westward and 8½ miles westward of the island.

Chart 3517, plan of Jazīrat Halūl anchorage. Digitized by Google

Page 188 continued.

A light is exhibited, at an elevation of 220 feet (67^m1), from a white concrete tower with a black top, 16 feet (4^m9) in height, on the summit of Jazīrat Halūl.

Chart 2830.

A shoal, with a depth of 3½ fathoms (6^m4) over it, was reported in 1951 by a vessel which struck it, about 13 miles south-south-eastward of Jazīrat Halūl.

A 10-fathom (18^m3) patch lies about 13 miles north-eastward of Jazīrat Halūl; the depths in the vicinity are uneven. A similar patch lies about 13½ miles north-north-westward of the island.

Chart 3517, plan of Jazīrat Halūl anchorage.

Anchorage.—Anchorage may be obtained in depths of 7 fathoms (12^m8) about 4 cables off the south-eastern coast of Jazīrat Halūl, with the 202-foot (61^m6) summit bearing 335° and the eastern extremity of the island bearing 014°. This anchorage affords shelter during a shamāl though much swell rolls round both sides of the island; the bottom is sand and coral and the holding ground is good.

Landing may be effected, in small boats of shallow draught, on the sandy beach north-westward of the anchorage; during south-easterly winds landing here would be dangerous, but there is a more sheltered place on the south-western part of the island.

Chart 3950.

Caution.—Caution is necessary when navigating in the area between Jazīrat Halūl and Jazīrat Sirri (page 132). This area has not been thoroughly surveyed and uncharted shoals have been reported.

Coast.—Dangers.—Northward of Dōha the land is chiefly stony desert, with a few hillocks; farther northward it becomes very low. The bottom close to the coast is of white sand and rock, and usually shows up well in clear water.

Dōhat Lūsail is a slight indentation in the coastline about 13 miles northward of Dōha fort, and is prominent from seaward on account of a ruined fort 45 feet (13^m7) in height; the land in this area is slightly higher than that of the adjacent coast. Dōhat Lūsail is shallow but is frequented by local dhows and pearling boats which shelter there during the shamāl.

At Umm es Salal (chart 3707), about 5½ miles south-westward of Dōhat Lūsail, there is a prominent ruined tower 50 feet (15^m2) high.

About 11 miles north-north-eastward of the tower of the ruined fort at Dōhat Lūsail is Ras an Nauf, a low rocky point. Ras al Matbakh (*Lat.* 25° 40' N., *Long.* 51° 34' E.) lies about 1½ miles north-eastward of Ras an Nauf and is the north-eastern entrance point of Khōr Shaqīq. The entrance to Khōr Shaqīq is marked by a beacon which stands about 1½ miles westward of Ras al Matbakh, and the channel has depths of 6 feet (1^m8) in it; it is used by local craft but, without local knowledge, the passage should not be attempted at low water as, north-westward of the beacon, the channel is not marked and several dangerous shallow patches exist. The khōr itself is shallow with general depths of from one to 6 feet (0^m3 to 1^m8). The village, in which there are several towers the highest of which is 40 feet (12^m2) in height, is situated at the western end of the khōr on rising ground.

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Khōr adh Dhakhira, about 4 miles northward of Ras al Matbakh, is small and shallow and affords little shelter ; there is a village on the western side of the khōr.

Ras Laffān (*Lat. 25° 55' N., Long. 51° 33' E.*), about 14 miles northward of Ras al Matbakh, is very low and sandy ; the coastal reef does not extend much more than half a mile from it.

There is a conspicuous cairn about $2\frac{1}{2}$ miles westward of Ras Laffān.

About $4\frac{1}{2}$ miles north-westward of Ras Laffān is Ras Qartas from which a narrow sand spit extends about $1\frac{1}{2}$ miles south-eastward ; the coastal reef extends about 6 cables from Ras Qartas.

Page 189.—Lines 1-33 : *Delete and substitute :—*

Chart 3950.

Off-lying dangers.—The coastal bank, over which there are depths of less than 3 fathoms (5^m5) and numerous drying patches, extends from 2 to 12 miles offshore between Dōha and Ras Laffān.

Fasht el Hraabi, which dries, lies about 8 miles north-eastward of Dōhat Lūsail (*Lat. 25° 29' N., Long. 51° 29' E.*) ; there are depths of from 8 to 27 feet (2^m4 to 8^m2) within about $2\frac{1}{2}$ miles westward of this patch which should be given a wide berth as it is not always plainly visible. Burnaat Maraqqat lies about 3 miles north-westward of Fasht el Hraabi and dries at its western extremity. Between these two reefs there is a shoal patch with a depth of 3 feet (0^m9) over it.

Ardh an Nauf is a reef which dries and lies on the coastal bank about 3 miles eastward of Ras al Matbakh ; it is plainly visible within a distance of one mile and, during the shamāl, heavy seas break over it.

Fasht el Yabis, which nearly dries, lies about $1\frac{1}{2}$ miles eastward of Ras Umm Sa, situated close northward of the entrance to Khōr adh Dhakhira.

Vessels of more than 12-foot (3^m7) draught should on no account proceed inside the 6-fathom (11^m0) line between Dōha and Ras Laffān. The coast can rarely be seen until near the 3-fathom (5^m5) line, and is difficult to recognize without local knowledge ; a number of vessels have got into difficulty in shallow water on this part of the coast.

A bank, with a depth of 35 feet (10^m7) over it, lies just within the 10-fathom (18^m3) line about 9 miles north-eastward of Ras Umm Sa.

Anchorage.—Good anchorage for small craft can be obtained at the entrance to Khōr Shaqīq, which is sheltered from shamāls. In 1949, H.M.S. *Challenger* drawing $15\frac{1}{2}$ feet (4^m7) anchored in a depth of 22 feet (6^m7) on a number of occasions, with Ras an Nauf bearing 267° and Al Jubail bearing 345° . Approach to this anchorage was made at high water crossing the 14-foot (4^m3) bar, in position 107° , 4 miles from Ras an Nauf, on a course of 281° ; this course was steered until Al Jubail bore 345° , thence course was altered to this bearing towards the anchorage. Tides at Khōr Shaqīq are similar to those at Dōha, with a spring range of from 5 to 6 feet (1^m5 to 1^m8).

There is good shelter for large vessels with Ras an Nauf bearing 289° distant from $7\frac{1}{2}$ to $11\frac{1}{2}$ miles, in depths of from 4 to 6 fathoms (7^m3 to 11^m0).

Lines 37-54 : *Delete and substitute :—*

Al Huwaila, about $6\frac{1}{2}$ miles west-north-westward of Ras Laffān, is a ruined fort of which the four ruined towers alone are identifiable.

Page 189 continued.

Between Ras Laffān and Al Huwaila a drying coral reef extends about half a mile from the coast.

Between Al Huwaila and Ras al Marūna, about 5 miles north-westward, is a small bay which affords shelter from the shamāl to native craft. At the head of the bay is the ruined village of Jusasiyah and Jebel Jusasiyah, 79 feet (24^m1) high, is conspicuous. A barge lies stranded about a mile southward of Ras al Marūna.

Fuwairat, about 2 miles north-westward of Ras al Marūna, is a ruined village in which there is a minaret visible from close inshore; a short distance northward is Jebel Fuwairat, the only other conspicuous hill between Ras Laffān and Ras Rākān. Jebel Fuwairat is a long ridge of limestone 64 feet (19^m5) high at its southern end.

At the village of Ain Sinan, about 2½ miles south-westward of Jebel Fuwairat, is a large clump of trees which, when not obscured by Jebel Fuwairat, can be identified up to a distance of 7 miles offshore.

Al Ghāriyah, about 2 miles northward of Jebel Fuwairat, is a small fishing village behind which are some low sandhills.

Ras Umm Hasā lies about 6 miles north-north-westward of Ras al Marūna and the bay between these two points affords shelter from the shamāl to small craft.

About 3½ miles north-westward of Ras Umm Hasā is the village of Al Mafjar; this village, and a hillock surmounted by a cairn about a mile farther north-westward, become visible when approaching from north-eastward before Ras Rākān.

Page 190.—Line 1: *Delete and substitute :—*

Chart 2830.

Lines 2-3: *Delete "very" to "on it" and substitute "low sandy islet"*

Lines 6-11: *Delete "Native" to "sighted."*

Line 13: *For "17" read "19"*

Line 15: *For "36" read "37½"*

Line 16: *Add :—*A shoal, with a depth of 5 fathoms (9^m1) over it, lies about 20½ miles north-north-eastward of Ras Rākān.

Page 191.—Line 1: *Delete and substitute :—*

Chart 2847.

Line 5: *Delete "(Katif)"*

After line 23 insert :—

Chart 2830.

Line 24: *After "Coast.—" insert "Buoyage.—"*

Line 27: *Add :—*All the villages on the north-western coast of Al Qatar were, in 1951, deserted and in ruins, having been sacked in recent years; a few fishermen sometimes camp temporarily among the ruins.

Line 28: *For "4" read "1½"*

Lines 33-34: *Delete "town" to "(Hasan)" and substitute "town."*

Page 192.—Line 1: *Delete and substitute :—*

Charts 2830, 2847.

Lines 2-4: *Delete and substitute :—*

The small village of Al Jumail lies 3½ miles south-south-westward of Ras abu 'Amrān; about 3 cables inland from the village is a small

Page 192 continued.

clump of trees, appearing as a single tree, which is conspicuous from seaward.

From Al Jumail the coast trends south-westward for about 2 miles to the head of a bay where the normal high water line is breached, a high water springs causing flooding of the low flats inland. From the head of the bay the coast trends sharply north-westward for about a mile to the village of Al Khadaj.

About $1\frac{1}{2}$ miles south-south-westward of Al Khadaj is the village of Al Khuwair; the coast of the bay between these villages is low-lying and is also flooded at high water springs.

About 4 cables northward of Al Khuwair village is a rocky islet connected to the mainland at low water. Thence an irregular sandy coastline, with occasional rocky outcrops, trends southward to fort Zubārah.

Lines 10-11: *Delete and substitute* :—

“ the head of this bay is very flat and swampy, showing no definite high water line; a small rocky islet lies about $1\frac{1}{2}$ miles north-eastward of Ras ‘Ashairiq; on the eastern side of the bay are the ruins of the town of Zubārah.

【Lines 14-15: *Delete and substitute* :—】

“ About 3 miles eastward of Ras ‘Ashairiq stands, at an elevation of 75 feet (22^m9), Zubārah fort, a conspicuous substantial building with four towers which has recently been rebuilt; the fort belongs to the Shaikh of Qatar, who resides at Dōha, and is normally locked and barred.

【Katat Ekhchejera is a reef with depths of from one to 6 feet (0^m3 to 1^m8), on the northern extremity of which is a patch that dries 3 feet (0^m9), and on the southern end of which is a patch that dries 6 feet (1^m8). This reef lies about 5 miles west-north-westward of Ras ‘Ashairiq; the sea ”】

After line 17 insert :—

A rock, with a depth of less than 6 feet (1^m8) over it, lies about 6 miles northward of Ras ‘Ashairiq.

Three black spherical buoys are moored $8\frac{1}{2}$ miles north-north-westward, $5\frac{1}{2}$ miles north-westward and $4\frac{1}{2}$ miles west-north-westward respectively, of Ras ‘Ashairiq; the buoyed channel, farther southward, is referred to below.

Line 22: For “ 5 ” read “ $6\frac{1}{2}$ ”

Line 27: After “ Coast.— ” insert “ Beacon.—Buoyage.— ”

Lines 34-35: *Delete* “ neither ” to “ surveyed.” and *substitute* “ a beacon stands on the northern part of the western of two islets situated about 2 miles north-north-westward of the northern extremity of Jazīrat Hawār.”

After line 39 insert :—

A channel, marked by black spherical buoys, lies from 2 to 8 miles off the western coast of Al Qatar, and extends south-westward from the vicinity of Ras ‘Ashairiq to abreast Jazīrat Hawār. A light-buoy, No. 3, with a conical topmark painted in black and white stripes, exhibiting a *white flashing light every six seconds*, is moored in this channel, nearly 3 miles north-westward of the beacon referred to above

Line 40: After “ dangers.— ” insert “ Buoyage.— ”

Line 43: For “ 8 ” read “ $7\frac{1}{2}$ ”

Line 45: For “ 2837b ” read “ 2830 ”

Page 192 continued.

Line 48: *Delete* "beacon" to "stones," and *substitute* "square coral beacon"

Line 49: *For* "boat" *read* "dhow; in the centre of the beacon is a fresh water spring and close eastward of it is a much smaller mound surmounted by a pipe marking a triangulation station. Local craft shelter from the shamāl on the south-eastern side of the reef"

Line 50: *For* "2 fathoms (3^m7)" *read* "11 feet (3^m4)"

Page 193.—Line 1: *After* "3790," *insert* "2830,"

Lines 5-7: *Delete* "which" to "staff" and *substitute* "the shape and height of which depends on the strength of the wind. A metal pipe, 7 feet (2^m1) high"

After line 8 *insert* :—

A detached shoal, with depths of from 2½ to 2¾ fathoms (4^m1 to 5^m0) over it, is centred about 7 miles eastward of the beacon on Katah ad Jaradeh; a rock, with a depth of less than 6 feet (1^m8) over it, lies about 7 miles south-eastward of the same beacon; a similar rock lies about 11½ miles south-south-eastward of the beacon.

A white spherical buoy, the northernmost of a buoyed channel which runs southward and south-westward and is referred to on page 192, lies about 4½ miles south-south-eastward of the above beacon.

After line 12 *insert* :—

Two coral cairns, each 6 feet (1^m8) high and surmounted by a pipe, stand about 6 and 11 miles southward of Katah ad Jaradeh.

Line 17: *For* "Light.—" *read* "Lights.—"

Line 26: *For* "3" *read* "7½"

After line 26 *insert* :—

Chart 3790.

A bank, with a depth of 5½ fathoms (10^m1) over it, lies about 4 miles west-south-westward of Bahrein light-vessel.

After line 27 *insert* :—

The glare of fires in the vicinity of Ras at Tannūra (page 207), Jabal adh Dhahrān (page 204) about 18 miles southward, and Sitra island may be seen at a distance of 40 miles.

Line 28: *After* "shoals," *insert* "known locally as Fasht Annaywah and Fasht Naiwat Arragie,"

Lines 30-53: *Delete* and *substitute* :—

"Rāhān (Lat. 26° 11' N., Long. 51° 14' E.); in 1949, they were observed to lie about one mile eastward of their charted positions. The shoals consist of two rocky patches, about 2½ miles apart in a north-south direction. The northern patch has a least depth of 11 feet (3^m4), and the southern has a depth of 10 feet (3^m0) over it; there is no visible indication of their presence.

A light is exhibited, at an elevation of 30 feet (9^m1), from a black steel pile beacon situated on the southern side of Fasht Annaywah; the light structure is equipped with a radar reflector.

A 4-fathom (7^m3) patch, the position of which is approximate, was reported, in 1948, about 2 miles north-westward of the above-mentioned light-structure.

A bank with a depth of 6 fathoms (11^m0) over it lies about 4 miles south-south-eastward of Fasht Annaywah.

Page 193 continued.

Hair Abu L'Thama, a detached patch with a depth of 3 fathoms (5^m5) over it, and steep-to, lies about 15 miles south-eastward of Fasht Annaywah.

Hair Abu Amamah, a bank about 16 miles in length with depths of from 6½ to 10 fathoms (11^m4 to 18^m3) over it, lies about 11 miles south-south-eastward of Fasht Annaywah.

[A light-and-whistle-buoy, exhibiting a *white flashing* light, every *eight seconds*, is moored off the south-eastern end of Hair Abu Amamah, about 10 miles north-north-westward of Bahrein light-vessel.]

For shoals and lights farther westward, *see* pages 208 and 209.

Page 194.—Line 2: *Delete and substitute :—*

“ Hair Sh'Taya, an extensive shoal with a least depth of 4½ fathoms (7^m8) over it, lies with its ”

After line 3 insert :—

A light is exhibited from **[No. 31]** a three-pile beacon on the northern extremity of Hair Sh'Taya, as defined by the 6-fathom (11^m0) line.

[Line 10: *After* “ Bank ” *insert* “ , on which lie numerous reefs.”]

Line 11: *Add :—*An artificial island, 18 feet (5^m5) high, composed of rubble, lies on the bank about 1½ miles south-south-eastward of the southern end of Jādam.

Line 14: *For* “ Adāla bank ” *read* “ Hair al Adhalah ”

Line 16: *Add :—*For light northward of Hair al Adhalah *see* page 208.

[After line 16 insert :—A flat with depths of less than 18 feet (5^m5) extends as much as 6 miles from the eastern side of Fasht al Jārīm and 2½ miles from its southern extremity. In the channel between this flat and the flat extending north-westward of Muharraaq (*see* below), lie several patches with depths of less than 18 feet (5^m5).**]**

[Line 24: *After* “ east-south-eastward ” *insert* “ and a 6-foot (1^m8) patch lies about 1½ miles east-north-eastward ”]

Line 25: *For* “ **Beacons.**— ” *read* “ **Beacon.**— ”

Line 32: *Delete* “ (Galali) ”

Line 34: *Delete* “ (Simahij) ”

Line 36: *Delete* “ (Riya) ”

[Line 41: *For* “ 3½ ” *read* “ 4 ”]

Lines 45-47: *Delete* “ A white ” to “ Khasaifa.”

Line 49: *Delete* “ (Saya islet) ”

Page 195.—Line 1: *Delete and substitute :—*

Chart 3789, plan of Khōr Kaliya and Sitra anchorage.

Line 8: *Delete* “ (Mahir) ”

After line 11 insert :—

For details of an obstruction which lies southward of the above fort, *see* page 202.

After line 18 insert :—

Chart 3792.

After line 20 insert :—

Red obstruction lights, for the use of aircraft, are exhibited from seven of a group of eleven radio masts, varying from 70 to 90 feet

Page 195 continued.

(21^m3 to 27^m4) in height, situated about 1½ miles north-north-westward of the town of Al Hadd.

Line 37 : For “ (Dukhan) (chart 2837b) ” read “ (chart 2847) ”

Line 44 : For “ Chart 3792 ” read “ Charts 3792 and 3789 ”

Page 196.—Lines 1 and 45 : *Delete and substitute :—*
Charts 3792 and 3789.

Line 8 : *Delete “ (Shereiba) ”*

Lines 9, 12 and 21 : *Delete.*

Line 23 : For “ Shareiba ” read “ Sharaiba ”

After line 41 insert :—

Chart 3790.

Line 45 : *Delete and substitute :—*

Chart 3792.

Page 197.—Line 1 : *Delete and substitute :—*

Chart 3789, plan of Bahrein harbour, and chart 3792.

Line 5 : For “ light-buoy ” read “ conical light-buoy ”

Line 6 : After “ light ” insert “ every twelve seconds ”

After line 6 insert :—

Middle Sitra conical light-buoy, painted in red and white stripes and exhibiting a *white flashing light every one-and-a-half seconds*, is moored nearly 8 miles east-south-eastward of Jazīrat Khasaifa. [A 6-fathom (11^m0) patch lies about one mile east-south-eastward of this light-buoy]

South Sitra light-beacon is referred to on page 200.

Line 7 : *Delete “ conical ” to “ bands,” and substitute “ black conical and ”*

Line 9 : After “ light ” insert “ every twelve seconds ”

[Line 11 : For “ conical ” read “ can ”.]

[Line 12 : After “ light ” insert “ every twelve seconds,”]

[Line 14 : Add :—“ Vessels should pass northward and westward of this light-buoy.”]

Line 16 : For “ 2½ ” read “ 2 ”

Lines 36-38 : *Delete.*

Line 53 : For “ 2837b ” read “ 2847 ”

Page 198.—Line 1 : For “ 2837b ” read “ 2847 ”

Line 29 : For “ wireless ” read “ radio ”

Page 199.—Line 1 : *Delete “ , 2837b ”*

Line 9 : *Delete and substitute :—*

Charts 3792 and chart 3789, plan of Bahrein harbour.

Line 13 : For “ W/T ” read “ radio ”

Line 14 : For “ 211 feet (64^m3) ” read “ 210 feet (64^m0) ”

Line 24 : For “ At ” read “ There is a depth of 7 feet (2^m1) at the head of this pier, but at ”

Line 27 : *Delete “ black ” to “ of ” and substitute “ conspicuous black iron framework beacon about half-way along ”*

[*After line 35 insert :—*

A new palace, with a conspicuous dome, has been constructed (1954) about 3½ cables south-eastward of the Shaikh's palace.]

Page 199 continued.

Line 39 : *After " boats " insert " ; the supply is unlimited but the water is brackish "*

After line 39 insert :—

The Customs pier is equipped with one 4-ton hand crane.

Line 48 : *Delete and substitute :—*

" Radio station.—There is a radio station and a radio D.F. station "

Page 200.—Line 1 : *For " 3792, with " read " 3789,"*

Line 4 : *For " a large population " read " , in 1950, a population of 109,650 "*

Line 22 : *Delete and substitute :—*

Charts 3792 and 3789, plan of Khôr Kaliya and Sitra anchorage.

Lines 34-35 : *Delete " but it " to " passage," and substitute " in which there is a swing bridge over the deepest part of the channel. The bridge is opened daily from 1100 to 1200 hours and from 2300 to 2400 hours, local time."*

Lines 40-41 : *Delete " , on which " to " staff,"*

Lines 44-49 : *Delete and substitute :—*

Bar beacon, a pyramid on three legs, about 11 feet (3^m4) high, stands about 2½ cables south-south-westward of Kassār Diwan.

South Sitra light-beacon, a conical framework tower 45 feet (13^m7) high, is situated at the south-eastern extremity of the shoal water which extends eastward from Muharraq island, nearly 3 miles east-south-eastward of Kassār Diwan.

South Shoals light-beacon, a black framework pile structure 12 feet (3^m7) high with a black square topmark, is situated nearly 1½ miles south-westward of South Sitra light-beacon and marks the northern side of the shoal water which extends south-eastward from Sitra island.

South Range light-beacon, a pile structure 12 feet (3^m7) high, stands about 3 cables southward of the light-structure on No. 1 oil wharf (page 202).

Line 52 : *For " A conical " read " Middle Ground conical "*

Page 201.—Line 1 : *Delete and substitute :—*

Chart 3789, plan of Khôr Kaliya and Sitra anchorage.

Lines 4-18 : *Delete and substitute :—*

North Range light-beacon, a pile structure 12 feet (3^m7) high, standing about 4 cables north-westward of the light-structure on No. 1 Oil wharf (page 202), marks the southern extremity of the shoal channels referred to above.

Triad beacon, a white stone truncated cone surmounted by a staff and ball, is situated on the western side of the channel about 4 cables north-westward of Kassār Diwan. This beacon is the most readily distinguishable daymark in the approach to Bahrein.

[Line 21 : *For " 4½ " read " 5 "]*

Lines 22-23 : *Delete " A conical " to " chequers " and substitute :—*
" A spherical buoy, painted black, and a can buoy, painted red "

Line 24 : *Delete " north-north-westward "*

Lines 27-28 : *Delete " 13 " to " structure " and substitute " 12 feet (3^m7), situated close southward of Bar beacon "*

Lines 32-38 : *Delete " Charts " to " Diwan." and substitute :—*
Charts 3789 and 3790.

Page 201 continued.

As Sitra, an island is situated with its north-eastern extremity about $2\frac{1}{4}$ miles west-south-westward of Kassār Diwan; a wooden bridge spans the narrow channel, part of which dries, between As Sitra and Bahrein islands.

Line 45 : *Delete and substitute :—*

Two light-buoys, Nos. 12 and 11, with conical topmarks painted in black and white stripes, are moored off the southern entrance to the narrow channel between Sitra and Bahrein islands; No. 12, which exhibits a *green flashing light every three seconds*, lies about three-quarters of a mile south-eastward of Mahāna as Saghira; No. 11, which exhibits a *white flashing light every four seconds*, is moored about one mile southward of the same place.

A black spherical buoy is moored about one mile off the eastern coast of Brahrein island, nearly $4\frac{1}{2}$ miles southward of the southern end of As Sitra.

Line 47 : *Delete " a water tower,"*

Line 48 : *Add :—*A chimney stands near the coast, about 2 cables south-westward of the flagstaff.

Lines 49-50 : *Delete.*

Lines 53-54 : *Delete and substitute :—*

" westward of Ras al Jasra. _____

Obstruction lights, for the use of aircraft, are exhibited from each of six radio masts situated south-eastward of the flagstaff on Ras al Jasra; similar lights are exhibited from each of three radio masts, 180 feet (54^m9) high, situated about three-quarters of a mile west-south-westward of the same flagstaff."

Page 202.—Line 1 : *Delete and substitute :—*

Chart 3792 and chart 3789, plan of Khōr Kaliya and Sitra anchorage.

[After line 4 insert :—

Three mooring buoys lie within half a mile southward of Shoreham beacon.]

Lines 14-16 : *Delete " 3 " to " Jasra." and substitute " 6 feet (0^m3 to 1^m8) over them, about 7 cables northward and 9 cables north-north-westward, respectively, of Ras al Jasra.*

An aircraft landing area is indicated on the chart between the above coral patches and the reef which extends north-eastward from Ras al Jasra; two — can — buoys, _____ moored one at each end of the one-foot (0^m3) detached patch, mark the north-eastern side of the landing area; four similar — buoys, moored along the edge of the shoal water north-eastward of Ras al Jasra, mark the south-western side of the area. When night-landing operations are in progress a flare-path, consisting of conical light-buoys exhibiting **[white]** fixed lights, is laid in the area; the flare-path occasionally remains laid by day.

Two — beacons, Nos. 5 and 7, stand north-westward of the landing area near the edge of the shoal water, within half a mile eastward of Ras an Nannas (see below)."

Lines 24-28 : *Delete and substitute :—*

Obstruction.—Mooring buoys.—A submerged pipe, for the supply of fresh water to boats and launches, exists on the eastern side of the channel, about $6\frac{1}{2}$ cables south-south-eastward of Abu Māhur fort (page 195), at the south-western extremity of Muharraq island.

Page 202 continued.

The pipe, which constitutes an obstruction, is protected by a square wooden anchored fender ; three red spherical mooring buoys lie close to the fender.

There is a mooring buoy about 3 cables southward of Shoreham beacon and another about 7 cables south-westward of it.

Line 29: For "**Directions.**—" read "**Wharves.—Jetties.—Lights.**—"

Lines 36-54: *Delete and substitute :—*

A hut, on an islet 3 feet (0^m9) high, situated close off the north-western extremity of As Sitra forms a useful anchorage mark.

Sitra anchorage, situated south-eastward of Khor Kaliya, affords good anchorage in depths of from 7 to 9 fathoms (12^m8 to 16^m5), with fair shelter from the prevailing winds.

Two oil wharves are situated about 1½ miles south-south-eastward of Kassār Diwan ; No. 1 wharf, an **H**-shaped detached pile structure, to which submerged pipe lines from the shore are connected, provides two berths, one on each side, with depths of from 34 to 40 feet (10^m4 to 12^m2) alongside, at which vessels lie with bow and stern secured to mooring buoys. No. 2 wharf, constructed of steel and timber, is connected by a causeway, nearly 2½ miles in length, to As Sitra ; it provides berths for four large vessels and has depths of from 34 to 40 feet (10^m4 to 12^m2) alongside. Tugs are available to assist vessels to berth. With strong northerly winds small vessels cannot lie comfortably alongside No. 1 wharf.

Lights are exhibited, at heights of 50 feet (15^m2) above the wharves, from No. 1 oil wharf and from the north-western and south-eastern heads of No. 2 oil wharf.

Chart 3790.

An **F**-shaped concrete jetty, with a depth of 4 feet (1^m2) at its head, lies on the south-eastern side of As Sitra, about three-quarters of a mile southward of the root of the above causeway ; about 6 cables farther southward, there is another concrete jetty with a **T**-head, alongside which there is a depth of 10 feet (3^m0).

About 7 cables south-westward of the southern end of Sitra island, and situated on Bahrein island, there is a concrete jetty over 4 cables in length, with a depth of 12 feet (3^m7) at its head.

Charts 3790, 3792 and 3789.

Directions.—From Bahrein light-vessel, a vessel bound for Sitra anchorage should steer to pass south-eastward of North and Middle Sitra light-buoys and South Sitra light-beacon, and thence westward towards the light-buoy marking the south-eastern end of the middle ground off the entrance to Khōr Kaliya. Vessels entering Khōr Kaliya should leave the middle ground buoy to starboard and, keeping the tall radio mast in Manāma just open south-westward of Bar beacon, steer to pass at least 40 feet (12^m2) westward of the latter on account of the sunken remains of an old beacon ; thence they should pass eastward of Triad beacon, whence course may be shaped for the anchorage.

Tidal streams.—The tidal streams run at great strength in the entrance to Khōr Kaliya, setting north-westward with the rising tide and south-eastward with the falling tide and attain a rate of 5 knots, or more, at springs.

Vessels should enter within about half an hour of high water which

Page 202 continued.

is the only period when the stream is relatively slack. The entrance can safely be used by vessels drawing up to 15 feet (4^m6).

Within Khôr Kaliya the tidal streams run at a rate of about half a knot.

Page 203.—Lines 1-9: *Delete and substitute* :—
Charts 3790 and 2847.

Line 29: *Delete and substitute* :—
Chart 2847.

Page 204.—Lines 1 and 50: *Delete and substitute* :—
Chart 2847.

Lines 2 and 8: *For* " adh Dhahrân " *read* " Umm er Rûs "

Lines 5-6: *Delete* " Jabal " to " 2837b), the " and *substitute* " The "
After line 8 insert :—

Chart 3790 and chart 3789, plan of approaches to Al Khobar.

About 5 miles southward of Ras Kuwakib is Al Khobar, close southward of which is a pier with a mast on its head and a pipe-line about 2 cables southward of it. The pier and the coast southward of it is fronted by a rocky shoal, but there is a narrow channel, with depths of from 2 to 4 fathoms (3^m7 to 7^m3) in it, between the shoal and the coast.

At Al Aziziyah, about 6 miles southward of Al Khobar, there is a wharf.

Line 17: *Delete.*

Line 18: *Delete* " (Duhat Dhalum) "

Line 29: *For* " , 2837b " *read* " and 2847 "

Page 205.—Line 1: *Delete and substitute* :—
Chart 2847.

Line 28: *For* " 30 " *read* " 27 "

Lines 30-32: *Delete* " (Duhat " to " 50° 38' E.) " and *substitute* " is entered about 16 miles south-south-eastward of Ras Uuwaqîl (Lat. 25° 09' N., Long. 50° 34' E.) "
Line 41: *After* " Dangers.— " *insert* " Beacon.— "

Page 206.—Line 12: *After* " Surra. " *insert* " or Hair as Sarah, "

Line 16: *For* " Adāla bank " *read* " Hair al Adhalah "

Lines 19-23: *Delete* " Najwa " to " water. " and *substitute* :—

Najwa, a low sandy islet over half a mile in length in a north-easterly and south-westerly direction, lies about 8½ miles northward of Chaschus; a beacon stands on the north-western part of the islet. The islet is practically surrounded by reef which extends north-eastward from it for nearly one mile and southward for about 1½ miles.

Page 207.—Line 11: *Delete and substitute* :—
Charts 3790, 3788 and 3789, plan of approaches to Dammām Port.

Dammām port and approaches.—**Lights.**—**Buoyage.**—About 5 miles north-westward of Ras Kuwakib, a railway causeway about 4 miles in length, from which a steel trestle pier extension is built for nearly another 2 miles, projects north-north-eastward from the coast across Ras Khali. A coastguard station is situated about a quarter of a mile south-eastward of the root of the causeway.

The pier is approached from northward by a deep-water channel

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which exists between Najwa (page 206) and Ras at Tannūra (*see below*).

The approach channel is marked by black three-pile light-beacons surmounted by a platform carrying the light-structure. The light-beacons are numbered from seaward, Nos. 2, 6, 8 and 10 beacons marking the western side of the approach and Nos. 9 and 11 beacons marking the eastern side. No. 2 light-beacon is situated nearly 3 miles east-south-eastward of Ras at Tannūra; for the positions of the remainder of these light-beacons and the colours of the lights exhibited from them the chart is the best guide.

A spar buoy, No. 4, moored on the western side of the channel, about one mile south-south-westward of No. 2 light-beacon, marks the edge of shoaler water in the vicinity. Another buoy, of no navigational significance to the channel, is moored in shoal water about $1\frac{1}{2}$ miles south-westward of No. 6 light-beacon, situated about 4 miles south-south-eastward of Ras at Tannūra.

[Pilotage.]—A vessel, bound for Dammām, of which the estimated time of arrival has been received, will be boarded off Dammām light-beacon No. 6 by the Saudi Arabian Government Railway Dammām Port Authority Pilot, who will pilot the vessel to an anchorage or to a berth alongside the pier. Pratique is granted at either place. A vessel awaiting a pilot should anchor southward of No. 6 light-beacon.]

Wharf and pier.—**Fog signal.**—**Mooring buoys.**—A wharf, 744 feet (226^m8) in length and 86 feet (26^m2) wide, is situated at the head of the trestle pier. There are berths at the wharf for two large ocean-going vessels, one on each side, with a depth of 36 feet (11^m0) alongside. A tide-gauge is situated at the wharf head.

A large building is situated on the wharf.

On the eastern side of the railway causeway, near its junction with the trestle pier, there is a pier, 342 feet (104^m2) in length, which extends eastward into the bay. This pier is for the use of lighters, dhows, etc.; between it and the main wharf there are five mooring buoys.

Port facilities.—Dammām port is operated by Saudi Government Railroad officials. A 15-ton travelling crane is available either on the main pier or the small craft pier; a fixed 5-ton crane is available on the western side of the main pier. For heavy lifts the use of a floating crane of 100 tons capacity can be arranged, but 72 hours notice is required.

The small craft pier is equipped with cranes for handling cargo from lighters and dhows.

Both the main wharf and the small craft pier are equipped with rail facilities.

No coal or fuel oil bunkers are available. Undistilled water can be obtained at the main wharf.

There are no repair facilities, and only emergency stores, provisions, and medical services, are available.

Pilotage.—Vessels bound for Dammām port must first proceed to Ras at Tannūra anchorage to obtain pratique.

The Saudi Government Railroad pilot will board vessels off Ras at Tannūra, after pratique has been granted, and will pilot vessels to the port.

Anchorage.—**Caution.**—There are anchorage berths off the main

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wharf for several vessels ; four of these berths are situated on the eastern side of the pier approach, on a line between Nos. 7 and 9 light-beacons, the remaining three berths are situated on the western side of the approach, on a line between Nos. 6 and 8 light-beacons.

Due to the irregular nature of the holding ground, which is mud interspersed with coral, dragging is possible and vessels should exercise caution. Tidal streams and currents of variable velocity and direction may be experienced, both these being affected by local winds.

Line 12 : For " Al Qatif " read " **Coast.**—Al Qatif "

Lines 43-55 : *Delete and substitute :—*

Chart 3789, plan of approaches to Dammām Port, and chart 3788.

Ras at Tannūra.—Beacons.—Lights.—Buoyage.—Ras at Tannūra is situated about 5 miles north-eastward of Jazīrat Tārūt ; it is the south-eastern extremity of a low-lying sand strip, less than a quarter of a cable wide in places, which, with a few sand hills on it, extends about 4 miles north-westward, where it joins the mainland. The highest of these sand hills, which appear white when the sun shines on them, is Adaime Hamer bin Yaber, 31 feet (9^m4) high, situated nearly 2 miles north-westward of Ras at Tannūra.

The extremity of Ras at Tannūra is level sand over coral, and is about 3 feet (0^m9) high. A beacon, consisting of the mast of a dhow, 52 feet (15^m8) high, stands near the the extremity of the point ; a steel framework tower, 50 feet (15^m2) in height, painted black with a broad white band, from which a light is exhibited, is situated about three-quarters of a cable south-westward of the beacon.

A beacon stands in shoal water about 6½ cables south-westward of Ras at Tannūra ; another beacon, nearly 6 cables farther south-westward, stands on the north-eastern edge of the large reef which extends about 4 miles north-eastward of Jazīrat Tārūt (chart 3790).

Dammām light-beacon No. 2, situated nearly 3 miles east-south-eastward of Ras at Tannūra, is the outermost light-beacon of those marking the approach to Dammām wharf, the details of which are referred to above.

The reefs westward of Ras at Tannūra, and the large reef north-eastward of Jazīrat Tārūt, show up well.

Depths of less than 12 feet (3^m7) are to be found within 1½ cables southward and south-eastward of Ras at Tannūra, and a bank with depths of 18 feet (5^m5), or less, over it, about 1½ miles in extent, lies within 1½ miles south-eastward of the point. A can light-buoy, painted black and exhibiting a *white flashing light every five seconds*, is moored off the northern edge of this bank about 6 cables eastward of the light-beacon on Ras at Tannūra.

Within 1½ miles northward of Ras at Tannūra, on the eastern side of the sand strip, there are wharves and mooring installations ; depths of less than 5 fathoms (9^m1) extend for as much as half a mile offshore in places in this vicinity.

On the western side of the sand strip, and extending for more than 2 miles north-westward from Ras at Tannūra, there is a stretch of water with a least width of about 2 cables, within the 3-fathom (5^m5) lines bounding it, in which there is a least depth of about 14 feet (4^m3). The entrance to this stretch is, however, narrow and tortuous and its south-western side is bounded by shoals, some of which dry or nearly dry.

Page 208.—Line 1 : *Delete and substitute :—*
Chart 3789, plan of approaches to Dammām Port.

Lines 4-38 : *Delete and substitute :—*

“ westward of Ras at Tannūra beacon. West Oil Loading pier lies $1\frac{1}{2}$ cables north-westward of West Cargo and Fish pier ; it has a depth of 12 feet (3^m7) alongside its head and is used for the discharge of lighters. West Oil Loading pier, which is L-shaped, is situated about $1\frac{1}{2}$ cables north-north-westward of West Cargo and Fish pier.

Three mooring buoys lie off the West Oil Loading pier and two pillar buoys are moored $3\frac{1}{2}$ cables westward and $2\frac{1}{4}$ cables north-westward, respectively, of the pier head.

A light is exhibited, at an elevation of 50 feet (15^m2), from a steel framework tower, painted red with a broad black band, situated on the western side of the sand strip, about one mile north-north-westward of West Oil Loading pier. For flare north-westward of this light see page 210.

Wharves.—Lights.—Beacons.—On the eastern side of the sand strip, about 6 cables northward of Ras at Tannūra, a causeway about $2\frac{1}{2}$ cables in length projects eastward from the shore. At the head of this causeway there is a wharf, known as South pier, about $1\frac{1}{2}$ cables in length, which forms a T-head to the causeway. There are four berths at the wharf, two on the outer side and two on the inner side, with a depth of 34 feet (10^m4) alongside, in 1949 ; a fixed sheer-leg crane, painted aluminium colour and 120 feet (36^m6) in height, stands on the wharf near its centre. [Depths of 32 and 34 feet (9^m7 and 10^m4) lie, respectively, about one mile east-north-eastward and $1\frac{1}{2}$ miles eastward of the crane.]

Lights are exhibited from the southern and northern heads of South pier, and from the crane.

Another causeway extends from the coast about three-quarters of a mile north-westward of South pier. This causeway, which has an L-shaped head, known as North pier, is about 6 cables in length. Lights are exhibited from the northern and southern corners of the head of this causeway.

Between these causeways, submarine pipe-lines extend seaward for nearly half a mile to an oil berth.

A pair of leading marks, for the southern approach to the oil berth, which in line bear about 260° , exists about $3\frac{1}{2}$ cables north-north-westward of the root of the southern causeway ; the front mark of this alignment consists of a diamond-shaped beacon, situated on the beach ; the rear mark consists of an aluminium-covered oil tank, on the lower part of which is painted a green circle.

A pair of leading marks, for the northern approach to the oil berth, which in line bear about 245° , exists about one cable farther north-westward of the leading marks referred to above ; the front mark of this alignment consists of a triangular-shaped beacon on the beach ; the rear mark is an aluminium-coloured oil tank, on the lower part of which is painted a black circle within which is a black stripe.

Anchorage.—Tidal streams.—Caution.—The harbour is exposed and difficult for boat and lighter work. Anchorage may be obtained north-eastward of South pier in depths of about 8 fathoms (14^m6), mud and sand. The tidal streams at this anchorage set northward and southward at rates of from 3 to 5 knots.

Restricted anchorage may also be obtained off the western side of

Page 208 continued.

the sand strip, south-westward of West Cargo and Fish pier, in depths of about 4 fathoms (7^m3). This anchorage is not recommended as the tidal streams, even at neaps, are very strong; the area due westward of West Cargo and Fish pier is filled by piles for the use of lighters mooring there. The anchorage is, however, well sheltered from the shamāl but, the bottom being hard, a good scope of cable should be veered; the kaus sends in a heavy sea, in which case better shelter will be found north-westward of Najwa (page 206).

In the vicinity of Ras at Tannūra, tidal streams of from 4 to 5 knots are experienced. A vessel rounding the point should have good way on her, on account of eddies and tide-rips.

The reefs southward of the entrance to the inner anchorage are usually visible.

Berthing.—Port facilities.—All vessels should report their estimated time of arrival by radio; a berthing master is available for berthing vessels at South pier.

Should a vessel require a pilot, ample notice must be given of her estimated time of arrival at Sitra anchorage (page 202), where a pilot, if available, will board.

Four tugs and about 14 lighters of about 100 tons capacity are stationed in the harbour.

There are 120-ton sheer-legs on the head of South pier, but it has been reported that their lift is limited to 75 tons by the foundations. A 20-ton travelling crane is available on North pier.

Floating cranes of 100 and 200 tons capacity are available.

Small ship repairs can be effected, and an electric welding plant is available.

Fuel and diesel oil are obtainable by pipe-line at East jetty.

There is no boiler water available, but drinking water of poor quality is piped to the wharves and distilled water to the western pier.

There is a Port medical officer at Ras at Tannūra.

In 1949, the population in the area was estimated to number about 2,000 Europeans and from 4,000 to 10,000 natives."

Chart 3788.

Off-lying dangers.—Tower.—Lights.—Buoyage.—Caution.—A light is exhibited from a three-pile beacon on Hair al Was'ah.

Hair Khorah, an extensive shoal with general depths of less than 6 fathoms (11^m0) over it, in the middle of which there is a 13-foot (4^m0) coral patch, lies with its centre about 8 miles north-eastward of Ras at Tannūra. A steel framework tower, 50 feet (15^m2) high and surmounted by a rectangular daymark, stands about 8 cables east-south-eastward of the 13-foot (4^m0) patch; a 12-foot (3^m7) shoal lies on the southern part of Hair Khorah about 2½ miles southward of the 13-foot (4^m0) patch.

A light is exhibited from a three-pile beacon about 4 miles south-westward of the framework tower on Hair Khorah. [Depths of 17 and 27 feet (5^m2 and 8^m2) lie, respectively, 2 cables and 7 cables westward of this light-beacon.]

Hair Shiggitah, a bank with a least depth of 24 feet (7^m3) over it, lies eastward of Hair Khorah and is separated from it by a channel from 2½ miles wide in which there are depths of from 6 to 12 fathoms (11^m0 to 21^m9).

A light is exhibited from [No. 55] three-pile beacon off the north-

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eastern side of Hair Shiggitaḥ about $6\frac{1}{2}$ miles north-eastward of the shoalest part of that bank.

A light is exhibited from [No. 32] three-pile beacon on the south-eastern extremity of Hair Shiggitaḥ, as defined by the 6-fathom (11^m0) line.

A light is exhibited from [No. 33] three-pile beacon on the southern side of the channel between Hair Shiggitaḥ and Hair al Adhalah (page 194) about 5 miles westward of the last-mentioned light.

[Hair Sh'taya, with depths of from 26 to 36 feet (7^m9 to 11^m0), lies about $7\frac{1}{2}$ miles east-south-eastward of Hair Shiggitaḥ. A light is exhibited from No. 31 beacon at the northern edge of this shoal.]

A black steel pile beacon, with "7" on its side, from which a light is exhibited, at an elevation of 30 feet (9^m1), stands about $4\frac{1}{2}$ miles northward of Ras at Tannūra, on the edge of the 6-fathom (11^m0) line which borders the coastal bank northward of that point."

Line 39: *For* "A 31-foot (9^m4)" *read* "Hair al Was'ah, a "

[Line 41: *Add* :—A light is exhibited from No. 57 beacon situated on Hair al Was'ah.]

Line 42: *For* "Fasht al Eling" *read* "Hair As Sufrah."

Lines 45-51: *Delete and substitute* :—

"steel pile beacon, with "5" on its side, situated on Hair al Biḥaim, the south-eastern part of Hair As Sufrah.

Deep draught vessels are advised to keep No. 5 light-beacon on Hair al Biḥaim bearing not more than 226° when at a distance of between 4 to 10 miles from it.

Hair Abu Subayti, a detached shoal, with a least depth of 16 feet (4^m9) over it, lies about 4 miles north-eastward of No. 5 light-beacon.

Hair Abu Dagal, a large detached shoal with depths of 10 fathoms (18^m3), or less, over it, lies with its shoalest part, 6 fathoms (11^m0), about 5 miles eastward of Hair Abu Subayti.

Fasht Abu Sa'afah, about 13 miles north-eastward of Hair As Sufrah, is a rocky patch marked by iron piles. The sea breaks heavily over this patch at times, there being "

Page 209.—Lines 2-3: *Delete* "red" to "beacon," and *substitute* "steel framework beacon, painted black below and red on top and "

Lines 4-18: *Delete and substitute* :—

"one mile northward of the shoalest part of Abu Sa'afah. The light-beacon is equipped with a radar reflector.

Hair al Khshainah, a shoal with a depth of 28 feet (8^m5) over it, lies on the south-western extension of Fasht Abu Sa'afah, about 5 miles south-westward of No. 2 light-beacon. A shoal, with a depth of 30 feet (9^m1) over it, lies about 4 miles south-eastward of No. 2 light-beacon. Fasht ar Jayjeh, a shoal with a least depth of 19 feet (5^m8) over it which lies on the south-eastern extension of Fasht Abu Sa'afah, is situated about 6 miles south-eastward of No. 2 light-beacon; a drilling pier, consisting of a red cylindrical steel structure on a platform, from which a light is exhibited, at an elevation of 16 feet (4^m9), stands on this shoal. These shoals are frequented by fishermen.

Hair Naiwat al Washeer, a shoal with a depth of 39 feet (11^m9) over it, lies about $3\frac{3}{4}$ miles south-eastward of the drilling pier light-structure on Fasht ar Jayjeh.

Page 209 continued.

For shoals farther eastward, *see* page 193.

Fasht Gharibah, a shoal with a least depth of 19 feet (5^m8) over it, lies about 10 miles west-north-westward of Fasht Abu Sa'fah. A light is exhibited, at an elevation of 30 feet (9^m1), from a black steel pile beacon with "3" on its side, situated on the south-western part of Fasht Gharibah; the beacon is equipped with a radar reflector. In 1949, the beacon was reported to be situated about 6 cables south-south-eastward of its charted position.

Fasht Um al Jamal, a rocky shoal, with a least depth of 6 feet (1^m8) over it and marked near its southern end by a beacon, lies "

Lines 22, 24, 25: For "Umm al Hamail" read "Fasht Um al Jamal"

Line 19: For "Retlawenna shoals" read "Fasht Gharibah"

After line 25 insert:—

Shoals, with depths of 9, 8 and 20 feet (2^m7, 2^m4 and 6^m1) over them, lie about 3½ miles south-south-westward, 5½ miles west-south-westward and 7 miles west-south-westward, respectively, of the beacon, near the southern end of Fasht Um al Jamal.

[Directions.]—A vessel approaching Ras at Tannūra, from eastward, by the "Fifty foot" channel should steer for a position 8 cables, 012°, from the light-and-whistle-buoy situated about 10 miles north-north-westward of Bahrein light-vessel. Thence she should steer to pass through positions 2·6 miles 097°, and 1·9 miles 141°, respectively from No. 5 light-beacon, and thence to a position 3·8 miles 169° from No. 7 light-beacon.

A vessel approaching by the "Thirty-foot" channel, which is normally used by vessels of light-draught, should follow the track indicated by a pecked line on chart 3790, passing northward of Nos. 31 and 32 light-beacons and southward of Nos. 32 and 34 light-beacons.

A north and south channel runs from a position 3·8 miles 308°, from No. 55 light-beacon, to a position 1·7 miles 105°, from No. 32 light-beacon.]

Line 26: For ", 2837b" read "and 2847"

Lines 50-51: For "Shaikh Gata" read "Hair Shiggitah"

Page 210.—Lines 1 and 24: For ", 2837b" read "and 2847"

Line 4: For "Khaura" read "Hair Khorah"

Line 6: Delete "Khaura" to "Gata" and substitute "Hair Khorah and Hair Shiggitah"

Line 19: Delete "Bu" to "Ashira" and substitute "Abu Sa'afah and Hair Abu Hagul"

Lines 21-23: Delete.

Line 25: After "Dangers.—" insert "Light.—Towers.—"

After line 39 insert:—

A flare was reported, in 1952, to be burning about 4½ miles north-westward of West Oil Loading pier at Ras at Tannūra (page 208).

Line 46: For "Qaliya (Kaliya)" read "Jailaiya (Qaliya)"

Line 49: For "Qaliya" read "Jailaiya"

[Line 52: For "4 miles north-westward" read "3½ miles west-north-westward"]

[Line 54: For "9 fathoms (16^m5)," read "7 fathoms (12^m8),"]

Page 211.—*After line 6 insert :—*

A steel framework tower, surmounted by a diamond daymark, stands nearly 5 miles north-eastward of Ras al Tailaiya.

Line 14 : *Delete and substitute :—*

Charts 2847 and 3788.

A steel framework tower, surmounted by a spherical daymark, stands about 7 miles east-south-eastward of Jabal al Bahri ; a similar tower, but with a rectangular topmark, stands about $5\frac{1}{4}$ miles north-eastward of the same hill.

Line 15 : *For " 18 " read " 13 "*

Line 16 : *For " a peninsula " read " an island "*

Line 20 : *For " $49^{\circ} 39' "$ read " $49^{\circ} 42' "$ "*

Line 21 : *For " 4 " read " $2\frac{1}{4}$ "*

After line 22 insert :—

Light.—A light is exhibited, at an elevation of 30 feet (9^m1), from a steel framework tower, 50 feet (15^m2) high, surmounted by a rectangular daymark with the number " M.9 " on it, about $2\frac{1}{4}$ miles east-south-eastward of the eastern extremity of Jazirat Abu 'Ali. Two more 50-foot (15^m2) towers are referred to on page 213.

After line 42 insert :—

Chart 2847.

Line 49 : *After " Jinna," insert " 180 feet (54^m9) high,"*

Page 212.—Line 1 : *Delete and substitute :—*

Chart 2847.

Line 19 : *For " $27^{\circ} 26' N.$, Long. $49^{\circ} 21' "$ read " $27^{\circ} 25' N.$, Long. $49^{\circ} 19' "$ "*

Line 44 : *For " $8\frac{1}{2}$ " read " $7\frac{1}{2}$ "*

Line 47 : *For " 5 miles north-north-eastward " read " 8 miles north-eastward "*

Line 49 : *For " , 2837b " read " and 2847 "*

Line 50 : *After " Dangers.— " insert " Towers.— "*

Page 213.—Line 1 : *For " , 2837b " read " and 2847 "*

Lines 3, 7 : *For " Qaliya " read " Jailaiya "*

After line 4 insert :—

For details of the towers which stand in the vicinity of the above shoals, and north-eastward of Jabal al Bahri, *see* page 211.

Line 10 : *For " 14 " read " 13 "*

Line 13 : *After " islet " insert " , the charted position of which is approximate,"*

Line 15 : *Delete and substitute :—*

A steel framework tower, 50 feet (15^m2) in height, surmounted by a rectangular daymark, stands about $8\frac{3}{4}$ miles east-south-eastward of Jazirat Jaraid.

Chart 2847.

Lines 16-18 : *Delete and substitute :—*

" Jazirat Janā was, in 1950, charted about 11 miles east-north-eastward of Ras Abu 'Ali (Lat. $27^{\circ} 18' N.$, Long. $49^{\circ} 42' E.$), but its position is approximate ; it is a sand islet, about 10 feet (3^m0) "

Line 22 : *Add :—*A steel framework tower, 50 feet (15^m2) in height, surmounted by a rectangular daymark with the number " M.10 " on it, is situated on this islet.

Line 24 : *For " 12 " read " 13 "*

Page 213 continued.

Line 27 : *Delete* " A shoal " to " 7 $\frac{1}{4}$ " and *substitute* " Shoals, with depths of 16 and 12 feet (4^m9 and 3^m7) over them, lie about 7 $\frac{1}{4}$ and 12 "

Line 28 : *Delete* " a reef " to " 6 $\frac{1}{2}$ " and *substitute* " two reefs, with depths of less than 6 feet (1^m8) over them, lie about 6 $\frac{1}{2}$ and 8 "

Line 29 : *Add* :—Two 5-fathom (9^m1) patches lie about 8 miles eastward and 9 $\frac{1}{4}$ miles east-north-eastward of Ras al Ghār.

Lines 33-34 : *Delete* " shoal " to " miles " and *substitute* " shoals mentioned above lying eastward and "

Line 39 : *For* " **Beacons.—Tidal streams.—** " *read* " **Light.—Beacons.—Tidal streams.—Caution.—** "

Page 214.—Lines 4-7 : *Delete* " end." to " down." and *substitute* " side. In 1949, the boat passage and the western entrance to the lagoon had silted up, but landing can easily be effected on the beach on the western side of the islet."

After line 14 insert :—

A light is exhibited[[], at an elevation of 90 feet (27^m4), from a black, iron, framework structure with a white band, 75 feet (22^m9) in height, situated on Jazīrat Fārsi.]

A shoal, with a depth of 13 feet (4^m0) over it, the position of which is approximate, was reported, in 1952, about 4 $\frac{1}{2}$ cables east-north-eastward of the light-structure on the northern end of the islet.

Lines 18-19 : *Delete* " , however " to " offshore " and *substitute* " extends offshore for about 2 $\frac{1}{2}$ cables from the southern side and up to 3 $\frac{1}{2}$ cables from the ends of the island "

Line 23 : *After* " Landing " *insert* " can easily be effected on the beach on the northern side of the islet ; elsewhere, landing "

Lines 30-32 : *Delete* and *substitute* :—

Chart 2847.

Line 33 : *For* " (Harkus), about 33 " *read* " , about 34 "

Line 37 : *Add* :—The islet is reported to lie about 8 cables eastward of its charted position.

A shoal, over which the depth is unknown, lies about 8 miles northward of Jazīrat al Harqūs, and a 4-fathom (7^m3) and a 5-fathom (9^m1) patch have been reported to lie about 15 and 22 miles north-north-westward, respectively, of the same islet. In the area northward of this islet, between Jazīrat Fārsi (page 213) and " No. 9 " beacon (page 216), depths of 13 fathoms (23^m8) are reported, together with many unsurveyed shoals ; vessels should pass through this area in daylight only, in conditions of high sun when shoals show up clearly.

Line 38 : *For* " (Karan), about 18 " *read* " , about 19 "

After line 45 insert :—

A dangerous steep-to shoal, over which there is a least depth of 1 $\frac{1}{2}$ fathoms (2^m7), lies about 7 $\frac{1}{2}$ miles north-eastward of Jazīrat al Qīran.

Line 46 : *Delete* " (Kurain) "

Line 47 : *For* " 3 $\frac{1}{2}$ " *read* " 4 "

Page 215.—Line 1 : *Delete* and *substitute* :—

Chart 2847.

Line 5 : *For* " (page 213) " *read* " (page 212) "

Line 6 : *For* " 23 " *read* " 25 "

Line 9 : *For* " 12 " *read* " 17 "

Page 215 continued.

Line 10: For " 5 miles west-north-westward " read " $2\frac{1}{2}$ miles south-westward "

Line 11: For " westward " read " north-westward "

Line 15: For " north-westward " read " north-north-westward "

Line 16: For " 8 " read " 5 "

Line 19: For " 13 " read " 15 "

Line 20: For " 4 miles north-westward " read " 8 miles westward "

Line 21: For " $48^{\circ} 46'$ " read " $48^{\circ} 48'$ "

Line 23: For " $2\frac{1}{2}$ miles south-westward " read " (chart 3960), $6\frac{1}{2}$ miles west-south-westward "

Line 25: Delete " (see " to " 2837b) "

Lines 27-28: Delete and substitute :—

Charts 3960 and 2847.

Line 29: Delete " (Makta) "

Line 34: Delete and substitute :—

" and south-eastward from the islet, forming the northern side of the anchorage. The north-eastern corner is marked by a beacon, No. 5, surmounted by a cylinder."

Line 38: For " close to " read " about $1\frac{1}{2}$ miles eastward of "

Lines 40-48: Delete.

Line 49: Delete " Bildāni " to " 16 " and substitute " **Lights.**—

Beacons.—Caution.—Bildāni reefs extend about 20 "

Line 51: For " 17 " read " 24 "

Page 216.—Line 1: Delete and substitute :—

Chart 2847 and 3960.

Line 2: For " off Jazīrat al Maqta' " read " at Bandar Misha'ab "

[After line 7 insert :—

A number of oil well platforms have been erected on the north-western part of Bildāni reefs northward of Ras as Saffāniya.]

Lines 8-9: Delete " A " to " lies " and substitute " Two detached patches, with depths of $2\frac{1}{4}$ and 2 fathoms (4^m1 and 3^m7) over them, lie, respectively, about 10 miles northward and "

Line 10: For " shoal. " read " former shoal. "

A three-pile beacon, No. 9, surmounted by a yellow ball, 30 feet (9^m1) high, stands on the detached $2\frac{1}{4}$ -fathom (4^m1) patch described above. For caution concerning the area between the beacon and Jazīrat Fārsi, see page 214.

Line 15: After " patch " insert " , marked by No. 9 beacon, "

After line 19 insert :—

Chart 3960.

A three-pile light-beacon, No. 8, about 15 feet (4^m6) high and surmounted by a drum, marks a shoal situated about 17 miles east-north-eastward of Jazīrat al Maqta', and about $11\frac{1}{2}$ miles west-north-westward of No. 9 beacon.

A three-pile light-beacon, No. 7, surmounted by a yellow ball, is situated on the northern side of a 2-fathom (3^m7) patch, about 5 miles westward of No. 8 light-beacon.

In 1948, a shoal on which a vessel drawing 24 feet (7^m3) struck, believed at the time to be a reef or a coral head, was reported to exist in a position about $6\frac{1}{4}$ miles northward of No. 7 light-beacon; steering due northward from this position, the vessel observed numerous uncharted reefs and breakers extending for about 3 miles on both sides of her course.

Page 216 continued.

A 15-foot (4^m6) coral patch was reported, in 1952, about 6 miles north-westward of No. 7 light-beacon.

A three-pile light-beacon, No. 6, surmounted by a yellow cone, point up, 30 feet (9^m1) high, stands about 3½ cables east-north-eastward of Kassār al Mitma and 6½ miles west-south-westward of No. 7 light-beacon.

A single-pile beacon, No. 5, surmounted by a square, marks the extremity of the sandy spit which extends about 2½ miles eastward from Jazīrat al Maqta'.

Anchorage.—Wharf.—Beacons.—Buoy.—Bandar Misha'āb, an anchorage on the southern side of the sandy spit extending eastward from the coast in the vicinity of Jazīrat al Maqta', is entered between No. 5 beacon and No. 6 light-beacon described above.

A detached steel and timber wharf, 405 feet (123^m4) long and 74 feet (22^m6) wide, lies in a north-easterly and south-westerly direction, about 4½ miles southward of Ras al Misha'āb and 1½ miles offshore; it is connected with the shore south-westward by an aerial cableway supported on wooden towers. A causeway, about 3½ cables in length, which has a T-head, 200 feet (61^m0) long, with a depth of 6½ feet (2^m0) alongside, extends north-eastward from the shore about 5 miles southward of Ras al Misha'āb.

Within the entrance, a fairway buoy, painted in black and white vertical stripes, is moored about 3½ cables north-eastward of the entrance to the channel leading to the anchorage and wharf; the channel, in which there is a least depth of 24 feet (7^m3), is marked by three-pile beacons Nos. 1 to 4, the two on the eastern side are each surmounted by a yellow ball and those on the western side by a yellow square.

Good sheltered anchorage may be obtained, in a depth of about 5 fathoms (9^m1), mud and sand, with the cable tower on the wharf bearing about 286°, distant about 5 cables.

The wharf will accommodate two vessels, in depths of 29 feet (8^m8) alongside; under no circumstances should a vessel pass south-westward of the wharf.

Tidal streams.—Little is known about the tidal streams in the offing, but north-westerly and south-easterly sets are reported to be strong at springs.

Pilotage.—A vessel requiring a pilot should send a request by radio, through Bahrein, stating the estimated time of her arrival at Ras at Tannūra anchorage where the pilot will board; if 72 hours' notice is given, arrangements will be made, if possible, for a pilot to board the vessel at the Bahrein light-vessel. Strangers are advised to employ a pilot for entering Bandar Misha'āb.

Charts 2847 and 3960.

Directions.—From a position northward of Jazīrat Fārsi, vessels should navigate with caution so as to pass about 1½ miles northward of No. 8 light-beacon and 1½ miles northward of No. 7 light-beacon; thence steer 235° for about 11½ miles for the fairway buoy, passing No. 6 light-beacon at a distance of nearly 1½ miles, abeam, to port; from the fairway buoy steer 210° through the channel leading to the anchorage, passing westward of the beacons surmounted by a ball and eastward of those surmounted by a square; thence steer 263° about 12 cables to the anchorage.

Page 216 continued.

The above track is indicated by a firm line on chart 3960.

Vessels should pass through the area between Jazīrat Fārsi and No. 9 beacon in daylight only, and should arrive off Jazīrat Fārsi before daybreak, the light on that islet being more easily seen than is the islet itself by daylight.

Port facilities.—There is a Medical officer at Bandar Misha'āb and limited hospital accommodation.

【Line 20 : *After* " KUWAIT.— " *insert* " Buoy.— "】

Line 22 : *For* " Qalia " *read* " Jailaiya "

Lines 24-26 : *Delete* " midway " to " ward " and *substitute* " 3 miles north-westward of Ras al Misha'āb "

Line 29 : *After* " Araifiyan," *insert* " marked on its eastern side by a white can buoy,"

Line 50 : *Delete* " (Bardhalk) "

Page 217.—Line 1 : *Delete* and *substitute* :—

Chart 【1223, *plan of Ras az Zaur anchorage.*】

Line 3 : *For* " 2 miles " *read* " a mile "

Line 5 : *Delete* " (See " to " 2837b)."

Line 6 : *Delete* " (Ami) "

Line 8 : *Delete* " (Zor) "

【Line 9 : *For* " 2 miles north-eastward." *read* " 3¼ miles north-north-eastward.

After line 9 *insert* :—

A conical buoy painted black and white in horizontal bands, is moored about 2 miles east-south-eastward of the entrance to Khōr al A'ma."

Chart 2847.】

Line 11 : *For* " 18 " *read* " 16½ "

After line 12 *insert* :—

A shoal, with a depth of 2 fathoms (3^m7) over it, lies about half a mile west-south-westward of Al Kumrah.

Line 14 : *Delete* " Umm " to " east- " and *substitute* " In 1949, an area of breakers, about half a mile in extent, was reported to lie about 23 miles east-north-eastward of Ras al Khafji ; the area was stated to be visible in daylight at a distance of about one mile, and to have the appearance of light and dark patches.

A reef about a quarter of a mile in extent, in an east-west direction, with depths of less than 6 feet (1^m8) over it, lies about 16½ miles north-eastward of Ras al Khafji, about 10½ miles south-eastward of Umm al Marādim.

Umm al Marādim, about 14 miles east- "

Lines 19-20 : *Delete* " A " to " Marādim." and *substitute* :—

A shoal, with a depth of 2 fathoms (3^m7) over it, was reported, in 1950, to lie nearly 1½ miles south-eastward of Umm al Marādim.

【*Chart* 1223, *plan of Ras az Zaur anchorage.*

A shoal, which dries, lies about 2 miles offshore 3½ miles south-eastward of the entrance to Khōr al A'ma.

Detached shoals, with depths of less than 36 feet (11^m0), lie within 6½ miles south-eastward of Ras az Zaur.

Chart 1265.】

Line 22 : *After* " Light.— " *insert* " Buoy.— "

Line 23 : *Delete* " (Kaliyah) "

Page 217 continued.

Lines 25-27 : *Delete* " 2 " to " 7 " and *substitute* " 3 fathoms (5^m5), or less, over it, extends about 3½ miles north-eastward. Kita at Araifiyan, marked on its eastern side by a white can buoy, surmounted by a rectangle between two pieces of piping, about 6½ "

[Line 37 : *For* " Chart 22 " *read* " Chart 1223, plan of Mina al Ahmadi.]

A light is exhibited, at an elevation of 51 feet (15^m5), from a black pylon situated about three-quarters of a mile southward of Ash Shu'aiba the southernmost of the four forts."

Line 38 : *Delete* and *substitute* :—

" Ash Shu'aiba, situated "

Lines 42-43 : *Delete* and *substitute* :—

[Mina] al Ahmadi.—Lights.—Fog signal.—Radio station.—Jetty.—Mooring buoys.—Port facilities.—Caution.—[Mina] al Ahmadi (Fahaheel) is situated about 2½ miles northward of Ash Shu'aiba.

A coastal radio station is situated about 3¼ miles west-north-westward of [Mina] al Ahmadi. Some oil tanks, with an elevation of 435 feet (132^m6), lie about three-quarters of a mile south-westward of the radio station.

Four prominent tanks, which from seaward appear as one, are situated about 3 miles west-south-westward of [Mina] al Ahmadi.

About midway between Ash Shu'aiba and [Mina] al Ahmadi there is a large oil and cargo T-headed jetty which projects eastward from the coast for nearly 7 cables. The northern part of the T-head provides six oil-loading berths for large vessels in deep water, four vessels being berthed on the outside, and two on the inside, of the arm ; there are no cranes but each berth is provided with derricks for handling the loading hoses. Vessels can berth here by day and at night.

The southern part of the T-head, which is equipped with four 5-ton travelling cranes and a derrick of 45 tons capacity, provides two berths for cargo vessels of any size, one on each side of the arm. Vessels can berth here by day only. A fog signal is sounded from the southern end of the pierhead.

The jetty and the T-head are flood-lit by light-standards at intervals, and the heads of the derricks are also illuminated ; in addition, lights are exhibited from the heads of two metal framework towers 75 feet (23^m0) high, situated one at each end of the cargo section of the T-head.

Three mooring buoys, lettered " A," " B " and " E," lie off the T-head and provide additional loading berths ; " A " and " B " buoys lie northward of the oil wharf, and " E " buoy lies southward of the cargo wharf.

Adjoining the southern side of the root of the jetty there is a small boat harbour protected by two stone breakwaters between which there is an entrance 440 feet (134^m1) wide. On the shoreward side of the boat harbour there is a quay of the use of lighters and, on the inside of the northern breakwater, there is a T-headed pier providing berths for numerous tugs.

Four ocean-going tugs and four harbour tugs are available.

There are thirteen lighters with capacities of from 180 to 500 tons.

Fuel oil is available, but fresh water is in short supply.

A hospital, maintained by the oil company, with 44 beds for Europeans, is situated about 13 miles from the port.

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At least 48 hours before arrival a vessel should report to "Marine Kuwait," through the radio station near Mena al Ahmadi, the following information :—

Expected time of arrival at [Mina] al Ahmadi, to be confirmed 12 hours before arrival.

Last port of call.

Whether the vessel has a clean bill of health.

Any sickness on board and whether medical attention is required.

Cargo and bunker requirements.

Supplies, provisions and labour required.

The oil and cargo jetty, when flood-lit, is a prominent mark from seaward but, when not illuminated, it should be approached during the hours of darkness with caution.

A light is exhibited, at an elevation of 158 feet (48^m2), about 9 cables north-north-westward of the root of the T-headed pier.

[Chart 22.]

Coast.—Dangers.—Light.—About 2½ miles northward of [Mina] al Ahmadi is Abu Hulaifa "

Line 45: *After "villages" insert "referred to above"*

[Line 48: *For "Sirrah" read "Sirra"*]

Page 218.—Line 14: *For "Beacon.—" read "Light-buoy.—Light.—"*

Line 15: *For "(Karu), 26" read "27"*

After line 29 insert :—

[A light is exhibited at an elevation of 40 feet (12^m2) from a red tower on a black light float] about half a mile south-south-eastward of Madaira reef.

Lines 41-42: *Delete "A stone" to "islet." and substitute :—*

A light is exhibited, at an [elevation of 91 feet (27^m7), from an iron framework structure, painted black and white in horizontal bands, situated on Jezirat al Kubr.]

A rocky patch, with a depth of less than 6 feet (1^m8) over it, lies about 6 cables north-north-eastward of the light-beacon.

Page 219.—Line 41: *Delete "Lights.—"*

Page 220.—Line 13; *Add :—*This bank, was reported, in 1944, to have extended northward, in a position about 2 miles north-westward of Ras al Ardh.

Lines 14-16: *Delete.*

Line 18: *After "Lights.—" insert "Beacon.—"*

[After line 24 insert :—

In 1953, dredging operations were in progress. Vessels should give at least 24 hours notice of arrival to the Port Superintendent.]

Line 30: *After "(5^m0)." insert :—*In 1944, this bank was reported to have extended about 1½ cables westward.

[Line 37: *Add :—*A conspicuous grey water tower, about 40 feet (12^m2) in height, stands close eastward of the Shaikh's house.]

[After line 39 insert :—

A small jetty with a depth of 2 feet (0^m6) at its head extends about one cable eastward from a position about 6 cables south-eastward of the Shaikh's house.]

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Line 44 : *Add* :—The bank on the southern side of Fasht al Hadiba was reported, in 1944, to have extended about one cable southward.

Line 48 : *For* " bands," *read* " stripes,"

Page 221.—[Line 2 : *Delete* " (Kurein) "]

After line 4 insert :—

A beacon, consisting of a stepped truncated cone, 35 feet (10^m7) in height, painted black, stands on the summit of Jazirat Qurain.

After line 14 insert :—

A light is exhibited on the eastern side of the north-eastern entrance to a boat harbour about a cable north-north-westward of the above-mentioned light.

Red obstruction lights are exhibited from each of two radio masts, one cable apart, situated about 6½ cables southward of the Shaikh's palace.

Lines 18-27 : *Delete and substitute* :—

" to it, is about 300 feet (91^m4) wide.

Leading light-beacons, for the navigation of the above channel, are established on the southern shore of the harbour, about 1½ miles eastward of Jazirat Qurain. The beacons, which in line bear 196°, consist of two black masts, the front one of which is surmounted by a black triangular daymark ; three lights, disposed vertically, are exhibited from each beacon. These beacons [are not prominent by day owing to the amount of building which has taken place along the foreshore, and the rear beacon is partially obscured on certain bearings.]

A can buoy, painted in black and yellow stripes, known as the Outer Turning buoy, is moored at the entrance to the channel, about one cable eastward of the alignment of the leading light-beacons.

A similarly marked can buoy, known as the Inner Turning buoy, is moored in a depth of about 14 feet (4^m3), at the inner end of the channel, close eastward of the alignment of the light-beacons.

A stone pier, with a depth of less than one foot (0^m3) at its head, is situated about 3½ cables south-westward of the front leading beacon ; a smaller pier lies about half a cable south-westward.

Two mooring buoys, lying about 7 cables south-westward of the stone pier, constitute permanent moorings for the Shaikh of Kuwait's yachts. A large number of other mooring buoys lie in Bandar ash Shuwaik but they are moved as convenient for the Oil company's requirements."

Lines 36-37 : *Delete* " Shaikh's coal shed " to " cables," and *substitute* " front leading light-beacon described above, bearing 112°, distant about 3½ cables."

Line 45 : *Delete and substitute* :—

" there is a sloping hardway close south-westward of the two piers. [The best landing is at Custom House jetty westward of the Shaikh's Palace flagstaff ; the boat harbour should be entered with the flagstaff bearing 283°."]

Page 222.—Line 23 : *For* " summit " *read* " beacon on the summit "

Lines 24-26 : *Delete* " until " to " high " and *substitute* " until

Page 222 continued.

close westward of the Outer Turning buoy, when she should turn on to the alignment of the leading beacons "

Line 28: *Delete* "buoyed" to " (3^m4) " and *substitute* " channel in which, in 1945, a depth of about 9 feet (2^m7) "

Lines 29-30: *Delete* " In 1933 " to " conspicuous. "

Line 31: *After* " When " *insert* " close westward of the Inner Turning buoy and "

Line 32: *For* " iron column " *read* " front leading light-beacon "

Lines 33-35: *Delete* " Care " to " front mark. " and *substitute* :— Care is necessary on a dark night as the barges moored offshore are not easily distinguished.

Page 223.—Lines 3-5: *Delete* and *substitute* :—

" unobtainable. Fish and eggs are procurable in small quantities. All drinking water is imported.

There are several small tugs and lighters, privately owned.

There is a private hospital and a Mission hospital ; the former has four beds for Europeans, the latter has none."

Line 32: *Delete* " (Kádhamā) "]

Line 42: *For* " Oushair " *read* " Qushair "]

Line 52: *For* " Jahra " *read* " Jahra "]

Page 224.—Line 10: *Delete* " SHATT " to " Dangers.— " and *substitute* " KHŌR 'ABDULLAH.—Dangers.—Buoyage.— "

Lines 26-27: *Delete* " near " to " old " and *substitute* " about 2½ miles southward of which is a ruined "

Line 35: *For* " with a depth of " *read* " which dries "

Lines 38-40: *Delete* " 2½ " to " Shoals " and *substitute* " 2½ to 3 fathoms (4^m1 to 5^m5), lie within about 1½ miles north-eastward and 4 miles south-eastward of Fasht al Aik. Athan shoal, with depths of 3 fathoms (5^m5), or less, and a least depth of 9 feet (2^m7) over it, lies with its northern end about 4½ miles east-south-eastward of Fasht al Aik. Two 3-fathom (5^m5) patches, about 2 cables apart, lie about 2 miles northward of Athan shoal, and several patches, with depths of less than 3 fathoms (5^m5), lie close off the northern shore bank northward of Athan shoal.] Two shoals "

Lines 42-44: *Delete* and *substitute* :—

" depth of about 3 fathoms (5^m5) in it, leading north-westward between these shoals.

Within the entrance of Khŏr 'Abdullah two shoals, with depths of 17 feet (5^m2) over them, lie about 4½ miles north-north-eastward and 5½ miles northward of Ras al Qaid and, about 1½ miles north-westward of the latter shoal and near the fairway, is Atlassi shoal, with a depth of 15 feet (4^m6) over it ; [three 17-foot (5^m2) patches lie within 3½ miles south-eastward of Atlassi shoal.]

Khŏr 'Abdullah is marked as follows :—

By a red conical buoy, painted in black and yellow horizontal bands, moored about 7 cables north-eastward of Athan shoal ; by a red conical bell-buoy moored off the north-eastern side of a detached shoal, with a depth of 14 feet (4^m3) over it, lying about 8 cables east-south-eastward of Ras al Qaid ; by a can buoy, painted red above black, moored about [4] miles east-north-eastward of Ras al Qaid ; by a red [can] buoy moored about [1½ miles] south-south-westward

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of the southern extremity of Atlassi shoal ; by a can buoy, painted in black and white chequers, moored about 10 miles north-north-westward of Ras al Qaid ; above this point the khōr is marked by a black can buoy, a can buoy painted black and yellow in horizontal bands and by [five] red can buoys, the positions of which can best be seen on the chart.

Chart 1235, plan of Khōr Abdullah.

Line 47 : *Delete " the " to " Sabiya " and substitute " Khōr Būbiyān "*

Lines 49-53 : *Delete " A " to " spit." and substitute :—*

An islet, with a beacon on its eastern side, lies a short distance north-eastward of the eastern extremity of Jazīrat Warba. Warba spit, with depths of 3 fathoms (5^m5), or less, over it and which dries 2 feet (0^m6) near the middle, extends about 2½ miles eastward of the eastern extremity of Jazīrat Warba, leaving only a very narrow channel into Khōr Shetana with a depth of 19 feet (5^m8) in it.

Page 225.—Lines 8-9 : *Delete " it is " to " point." and substitute " vessels should not anchor northward of the pecked line on the chart about 6 miles eastward of Ras al Qaid on account of submarine cables ; see page 15 "*

Lines 15-18 : *Delete " the Old " to " palms." and substitute " the beacons marking the entrance to the Shatt al Arab."*

Line 21 : *After " side," insert " and Athan shoal "*

Lines 23-24 : *Delete " Depths " to " below " and substitute " Within the entrance vessels should pass north-eastward of Athan shoal and south-westward of Atlassi shoal. A depth of 4 fathoms (7^m3) can be carried to within about 2 miles of "*

Page 226.—Line 1 : *Delete and substitute :—*

Chart 2847.

Line 3 : *For " 30° 01' N., Long. 49° 35' " read " 30° 00' N., Long. 49° 37' "*

Line 14 : *For " M on chart 2837b " read " D on chart 2847 "*

Line 20 : *For " 5,350 feet (1630^m7) " read " 5,327 feet (1623^m7) "*

Line 23 : *Delete " and " to " 2837b "*

Line 30 : *For " 10,200 feet (3109^m0) " read " 10,558 feet (3218^m1) "*

Page 227.—Line 1 : *Delete and substitute :—*

Chart 2847.

Lines 8-12 : *Delete " a sharp " to " above " and substitute " Kūh-i-Girgiri, a pyramidal peak, 3,373 feet (1028^m1) high.*

Kūh-i-Khami, or Behbehān kūh, about 26 miles north-eastward of Kūh-i-Girgiri "

Line 17 : *For " 30° 01' N., Long. 49° 35' " read " 30° 00' N., Long. 49° 37' "*

Line 23 : *For " 5 " read " 3 "*

Line 25 : *For " 30 " read " 25 "*

Line 32 : *Delete and substitute :—*

Chart 2847, plan of Jazīrat Khārg and Jazīrat Khārgā.

Lines 36-37 : *For " Dedabuun " read " Didabun "*

Page 228.—Line 1 : *Delete and substitute :—*
Chart 2847, plan of Jazīrat Khārg and Jazīrat Khārgū.

Line 17 : *For " 21' E " read " 20' E "*

Line 53 : *Add :—*Anchorage off the eastern side of Jazīrat Khārgū affords good shelter when the outer anchorage off Bushire is untenable owing to bad weather.

Page 229.—Line 1 : *Delete and substitute :—*
Chart 2847, plan of Jazīrat Khārg and Jazīrat Khārgū.

Line 4 : *Delete and substitute :—*
Chart 2847.

Line 7 : *For " 17 " read " 20 "*

Line 8 : *For " 10 " read " 11 "*

Line 16 : *For " 29° 27' N., Long. 50° 37' " read " 29° 29' N., Long. 50° 38' "*

Lines 38-41 : *Delete.*

Line 47 : *For " 7 miles north-westward " read " 3½ miles north-westward of Ganāweh light-structure "*

Lines 48-49 : *Delete " 5 " to " Ganāweh " and substitute " a mile north-westward of Ganāweh light-structure "*

View facing this page : *Delete " W/T masts "*

Page 230.—Line 1 : *Delete and substitute :—*
Chart 2847.

Line 4 : *For " 7 " read " 10 "*

Line 6 : *For " 16 " read " 18 "*

Line 8 : *For " northward " read " south-eastward "*

Lines 10-16 : *Delete " About " to " excellent. "*

Line 19 : *Delete " About " to " is " and substitute " The entrance to Khōr Lailatain is at "*

Line 23 : *Delete " 8 " to " is " and substitute " 7 miles eastward of Ras Tanb is Kūh-i-Bikas, "*

Line 28 : *For " 30 " read " 28 "*

Line 30 : *For " 6 " read " 7 "*

Line 45 : *For " 8 " read " 7 "*

Page 231.—Line 1 : *Delete and substitute :—*
Chart 2847.

Line 3 : *For " 6 " read " 5 "*

Lines 10-11 : *For " 30° 01' N., Long. 49° 35' " read " 30° 00' N., Long. 49° 37' "*

Lines 19-20 : *Delete " on " to " mouth " and substitute " nearly 5 miles eastward of the mouth of Zuhreh river "*

Line 24 : *For " 9 " read " 11 "*

Line 27 : *Delete and substitute :—*

Charts 1265 and 1268.

Line 28 : *After " Buoyage.— " insert " Tide-gauge.—Tidal signals.—Beacons.—Lights.— "*

Lines 29-30 : *Delete " (at Tullub) "*

Line 35 : *Delete " (Miairiz) "*

After line 42 insert :—

Khōr Ghazlān leads, by a narrow channel, into Khōr Wāstah which has not been surveyed and which joins Khōr Mūsa about 21 miles northward of Bu Sif.

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Line 43 : *Delete* " $1\frac{1}{4}$ " to " Tanūb " and *substitute* " 3 miles west-north-westward of Ras Tanūb, and close eastward of Bunneh island (page 232), "

Page 232.—Line 1 : and *substitute* :—
Charts 1265 and 1268.

After line 9 insert :—

Chart 1268, and plan of The Bar.

Line 11 : *For* " $48^{\circ} 56'$ " *read* " $48^{\circ} 55'$ "

Lines 12-13 : *Delete* " reported " to " (7^m3) " and *substitute* " in January 1951 a dredged depth of about 31 feet (9^m4) "

Lines 17-22 : *Delete and substitute* :—

" Outer " buoy, a light-and-whistle-buoy, painted black and exhibiting a *white flashing light every six seconds*, is moored about 25 miles south-eastward of Bu Sif and 6 cables southward of a shoal, reported in 1950, with a depth of 23 feet (7^m0) over it.

" Shoal " light-buoy, a can, painted red and exhibiting a *white flashing light [every three seconds]*, is moored about 18 miles south-eastward of Bu Sif and 7 miles north-westward of " Outer " buoy ; " Shoal " light-buoy marks the northern side of a bank with a depth of 31 feet (9^m4) over it.

" Fairway " light-buoy, conical, painted red and exhibiting a *white flashing light every three seconds*, is moored about $11\frac{1}{2}$ miles east-south-eastward of Bu Sif.

[Lines 23-31 : *Delete and substitute* :—

The channel as far as Qahr an Nakhuda is marked on the eastern side by conical light-buoys, painted black, numbered 1, 3, 5, 7 and 9, Nos. 1 and 5 each exhibiting a *white group flashing light*, showing *three flashes every nine seconds*, Nos. 3 and 9 each exhibiting a *white flashing light every five seconds*, and No. 7 exhibiting a *group flashing light*, showing *three flashes every ten seconds* ; and the western side by light-buoys painted red and numbered 2, 4, 6, 8, 10, 12 and 14, Nos. 2, 4 and 6 are can and the remainder conical, Nos. 2, 4, 6 and 10 each exhibits a *red flashing light every five seconds*, No. 8 exhibits a *red group flashing light*, showing *three flashes every nine seconds*, No. 12 exhibits a *red group flashing light*, showing *two flashes every nine seconds*, and No. 14 exhibits a *red flashing light every three seconds*.

No. 16 conical light-buoy, painted red and exhibiting a *white group flashing light*, showing *two flashes, every five seconds*, is moored on the western side of the anchorage about $1\frac{1}{2}$ miles west-north-westward of Qahr an Nakhuda.

Above Qahr an Nakhuda the channel is marked on its south-eastern side by No. 11 light-beacon, and by conical light-buoys painted black, numbered 13, 15 and 17, Nos. 13 and 17 each exhibiting a *white flashing light every five seconds*, and No. 15 exhibiting a *white group flashing light*, showing *three flashes every ten seconds* ; and on its north-western side by 18, 20, 22 and 24 light-beacons.

A conical light-buoy, painted black and exhibiting a *white group flashing light*, is moored about 5 miles eastward of Bandar Shāpūr.]

A tide-gauge, consisting of an iron framework structure on a platform, on which there are two huts, the whole mounted on iron piles, stands westward of the bar about midway between Nos. 6 and 8 light-

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buoys. The structure, about 80 feet (24^m4) high and forming an excellent mark by day, is surmounted by a white dial, about 15 feet (4^m6) in diameter, from which day tidal signals are indicated ; night tidal signals are indicated by *white, red and green* lights exhibited above the dial.

Three small triangular beacons, about 12 feet (3^m7) high, stand near the eastern side of the bar, between 5 and 10 cables south-eastward of the tide-gauge."

Chart 1268.

Line 29 : *For " five " read " six "*

Line 31 : *For " buoys " read " light-buoys "*

Line 32 : *For " 2 miles westward " read " 3 miles west-north-westward "*

Line 46 : *For " 15 " read " 14 "*

After line 53 insert :—

Chart 1268, plan of Bandar Shāpūr.

Line 54 : *After " Shāpūr.— " insert " Facilities.— "*

Page 233.—Line 1 : *For " Chart 1265." read " Chart 1268, plan of Bandar Shāpūr."*

Lines 5-13 : *Delete and substitute :—*

Two jetties, both connected to the railway system, front the town. Railway jetty, the western of the two, is about 850 feet (259^m1) in length and, in 1948, had a charted depth of about 32 feet (9^m8) alongside ; there are berths for two vessels on the outside of this jetty. The eastern jetty is about 1,750 feet (533^m4) in length with a depth alongside, in 1948, of 25 feet (7^m6) and provides berths for three vessels on its outer side ; the inner side of this jetty, known as Musa wharf, is only suitable for lighters and, in 1947, had a depth of 6 feet (1^m8) alongside.

Another lighter wharf, known as Bazaar wharf, is situated within the creek on the eastern side of the town.

There are no cranes or other facilities, except lighting, on the two large wharves, but on shore there are two mobile 5-ton cranes and one mobile 12-ton diesel driven crane. Water is obtainable, however, at the large wharves and is supplied from tank waggons, but 48 hours notice is required.

A light (*Lat. 30° 25' N., Long. 49° 05' E.*) is exhibited from a red beacon standing about three-quarters of a cable north-north-westward of the western end of Railway jetty.

The harbour is administered by a Persian Port officer whose authority only covers the shipping interests of the port. A Customs house is situated in the port and is administered by a Director of Customs whose authority extends to Bandar Ma'shūr and Ahwāz.

Local weather.—The rainfall is about 10 inches (0^m3) annually ; it is experienced during the winter months and is usually associated with southerly gales. The shamāl or north-west wind blows throughout the summer months, starting about 0900 daily and dying about sunset. Fog may be experienced during the months of October and November.

Chart 1268.

Line 32 : *Delete " (Abu Khadhair) "*

Line 36 : *For " 1½ miles " read " about three-quarters of a mile "*

Page 233 continued.

Lines 37-43 : *Delete and substitute :—*
Chart 1268.

Pilotage.—Pilot vessel.—Fog signal.—Radiobeacon.—A pilot vessel is stationed between "Outer buoy" and "Fairway" light-buoys. The vessel is painted white with the name "Khor Musa" in black on her sides, and has two masts and a yellow funnel; when absent from her station she is replaced by a tug. Five pilots, including a chief pilot or Harbour master, are available; the chief pilot takes charge when nearing Bandar Shāpūr and berths all vessels.

Pilotage is compulsory except for H.M. ships and local small craft.

During periods of low visibility, due to fog, dust or sandstorms, the pilot vessel will, in addition to the appropriate signals under such conditions, sound the letters P.V. in Morse code on the steam siren every fifteen minutes, commencing at each hour; on the near approach of vessels the signal will be sounded more frequently in order to assist such vessels.

On request, the pilot vessel will function as a radiobeacon, and vessels requiring this service should obtain the exact position of the pilot vessel. This radiobeacon service should be arranged direct by radio contact with the pilot vessel; her call sign is "EPBA."

Chart 1268, plan of Khor Ma'shūr.

Bandar Ma'shūr.—Port facilities.—This port lies in Khōr Ma'shūr about 7 miles east-north-eastward of Bandar Shāpūr. There are two berths here, each consisting of four mooring buoys marking the corners of a rectangle to which vessels up to a length of 550 feet (167^m6) can secure. The holding ground is poor.

The channel leading from Bandar Shāpūr to the berths is marked by pile light-beacons and buoys, and is wide, deep and clear; in December, 1942, there was a depth of 45 feet (13^m7) at each berth.

Fresh water can be supplied at Bandar Ma'shūr in barges at a rate of 160 tons a day, but it should be chlorinated before drinking and softened, or evaporated, before being used in boilers.

Fresh meat and vegetables are obtainable in moderate quantities after 48 hours notice has been given.

Two tugs are available to assist in the berthing of vessels.

A pilot will pilot all vessels from Bandar Shāpūr to the berths.

Chart 1265.

Page 234.—Lines 18-21 : *Delete* "the ruins" to "fort," and *substitute* "South Mast beacon, a black structure 75 feet (22^m9) high, stands on the south-eastern extremity of the point; on the opposite bank, about 4 miles north-westward of this beacon,"

Line 24 : *For* "almost impossible" *read* "difficult"

Line 30 : *Delete* "3 miles" to "fort" and *substitute* "5½ miles above Ras al Bisha"

Line 35 : *Delete* "sandy"

Line 50 : *Add :—*【An 18-foot (5^m5) patch lies about 2¼ miles southward, and a 26-foot (7^m9) patch lies about one mile north-westward of Palinurus shoal. Depths of less than 6 fathoms (11^m0) lie between Palinurus shoal and the south-eastern edge of Mazaqqat Abdullah (page 239).】 Vessels are cautioned not to pass between Shatt al Arab light-vessel and Palinurus shoal.

Shatt al Arab light-vessel, with a red hull and a white mast and

Page 234 continued.

with " Shatt al Arab " in white letters on her sides, is moored about 16 miles south-south-eastward of Pile beacon (page 235), and about 3½ miles south-eastward of the shoalest part of Palinurus shoal. A light is exhibited, at an elevation of 32 feet (9m8).

Line 53 : *After " light " insert " every twelve seconds "*

Page 235.—Line 13 : *Delete " Old " to " 3842) " and substitute " Pile beacon (Old semaphore) "*

Line 16 : *For " Old semaphore tower " read " Pile beacon "*

Lines 17-21 : *Delete and substitute :—*

Rooka light-buoy, painted in black and white vertical stripes and exhibiting a *white flashing light every six seconds*, is moored about [5] miles east-south-eastward of Pile beacon. The light-buoy is equipped with a radar reflector.

[Lines 22-28 : *Delete and substitute :—*

A buoy painted yellow and black in horizontal bands is moored about 6 miles eastward of the old Semaphore Pile, and marks a spoil ground.]

After line 29 insert :—

Radio.—There is a radio station at Abadan ; *see* page 17.

Lines 31, 53 : *For " Khasrowabad " read " Kabda "*

After line 33 insert :—

Vessels carrying dangerous cargo or explosives shall inform the Harbour master on boarding.

[Vessels proceeding in the same direction are not permitted to overtake or pass each other between Mu'aviyen spit and the Outer Western light-buoy.]

Lines 48-49 : *Delete and substitute :—*

The limits of the dredged channels are between positions with Rooka rear leading-beacon bearing 024°, distant 14 cables and Fao flagstaff bearing 213°, and as demarkated by buoys and beacons.

Line 52 : *After " Shatt al 'Arab " insert " , but H.M. Ships which do not use the channel regularly and frequently should employ a pilot "*

Page 236.—Line 12 : *For " painted white " read " with a black hull and " PILOTS " in white letters on her sides and "*

Lines 13-14, 20 : *For " Old semaphore tower " read " Pile beacon "*

Line 18 : *For " Control Officer." read " Channel Control station (see page 238)."*

Line 22 : *Delete " and of Khasrowabad,"*

Line 23 : *After " bank " insert " , near any submarine cable or in any place where a vessel might obstruct the fairway "*

Line 26 : *For " control vessel." read " Channel Control station."*

An inward bound vessel may not enter Rooka channel later than four hours before high water, except when there is no outward bound traffic ; when so excluded she must wait until outward bound vessels are clear.

A vessel having received permission to enter and being unable to do so at the specified time shall inform the pilot vessel, and apply again for permission to enter when she is ready, in order that dredging and outward traffic may not be delayed."

Page 236 continued.

Lines 32-43 : *Delete and substitute :—*

All vessels navigating between the pilot-vessel and Kasba shall keep in constant radio touch with the Channel Control station.

Delete the view facing this page.

Page 237.—Lines 8-9 : *Delete and substitute :—*

“ An inward bound vessel shall not pass an outward bound vessel near No. 14 light-buoy (page 242), but must ”

Lines 13-16 : *Delete.*

Line 18 : *For* “ Control Officer.” *read* “ Channel Control station.”

Line 19 : *For* “ the channel ” *read* “ Rooka channel ”

Lines 26-30 : *Delete and substitute :—*

Vessels inward bound through the Western channel shall pass southward of Rooka light-buoy, and all vessels shall keep to the star-board side of the fairway as prescribed in Article 25 of the Regulations for the prevention of collisions at sea. Vessels must navigate with great caution between the Inner Western light-buoy and No. 12 light-buoy (page 242) and must not cross ahead of Rooka channel traffic.

Line 46 : *Delete* “ Control ” to “ tender ” and *substitute* “ Channel Control station ”

After line 54 insert :—

Quarantine regulations.—On approaching the Shatt al ‘Arab, vessels must contact Fao radio station 24 hours before arrival at the pilot station, and send the standard code quarantine message, as prescribed by the International Code of Signals, Vol. II, 1931, addressed to Port Health, Fao. The Health Declaration should be completed as usual and surrendered to the Quarantine official at the ship’s destination.

Page 238.—*Delete the diagram facing this page.*

Lines 2-9 : *Delete and substitute :—*

Channel Control station.—Traffic and Tidal signals.—A Channel Control station, from which traffic signals are directed, is established at Fao (*Lat.* 29° 58' N., *Long.* 48° 29' E.). The Control station is equipped with radio, for details of which *see* the Admiralty List of Radio Signals, Vol. II. The traffic signals, and also the tidal signals, are displayed from [masts situated on a large square building] at Fao, as described below :—

Traffic.—Two black balls disposed vertically, by day, and, at night, a *green* light over a *white* light, shown on the flagstaff at Fao, indicate that the channel is closed to all outward bound vessels.

Three black balls disposed vertically, by day, and, at night, two *green* lights, one at each yardarm of the flagstaff at Fao, indicate that the channel is closed to outward bound vessels of 28 feet (8^m5) draught and over.

A *green* light over a *red* light, at night, indicates that the channel is open to outward bound vessels.

Lines 11-13 : *Delete and substitute :—*

“ Signals, indicates that no vessel is to pass the Channel Control station. At night, the station communicates by flashing lamp ; the leading vessel is to acknowledge the signal, and repeat it to the next vessel astern until answered.

A black drum with a white horizontal band, by day, or, at night, two *green* lights, disposed vertically, 6 feet (1^m8) apart, shown from the

Page 238 continued.

flagstaff at Fao, indicate that an inward bound vessel has entered Rooka channel ; outward bound vessels must navigate with caution and must not pass the inward bound vessel eastward of No. 13 light-buoy (page 243)."

Lines 15-**[20]** : *Delete* " by the " to " **[over.]** " and *substitute* " from the flagstaff **[at Fao.**

A cone point up indicates a rise of one foot (0^m3) or 7 feet (2^m1).

A cone point down indicates a rise of 2 feet (0^m6) or 8 feet (2^m4).

Two cones points up indicate a rise of 3 feet (0^m9) or 9 feet (2^m7).

Two cones points down indicate a rise of 4 feet (1^m2) or 10 feet (3^m0).

Two cones point to point indicate a rise of 5 feet (1^m5) or 11 feet (3^m4).

Two cones base to base indicate a rise of 6 feet (1^m8) or 12 feet (3^m7).

A square shape displayed from the opposite yard arm indicates an additional rise or 6 inches (0^m2).

When two cones are used they will be separated by a 2-foot (0^m6) tackline. **]**

After line 35 *insert* :—

When the channel is closed to all outward bound vessels, no tidal signals will be shown at Fao, but when the channel is closed only to vessels of 28 feet (8^m5) draught and over, they will be shown.

Line 41 : *For* " *Dredgers.*— " *read* " **Dredgers.—Signals.—Regulations.**— "

Page 239.—Line 3 : *For* " light-vessel " *read* " light-buoy "

After line 8 *insert* :—

These signals apply to all dredged channels, including Karun bar, and are to be used whenever a vessel wishes a dredger to leave the channel clear.

Line 9 : *After* " **Channels.**— " *insert* " **Beacons.**— "

Line 10 : *For* " and extend about 7 " *read* " extending about 8 and 6 "

[Lines 14 and 16 : *For* " Rooka " *read* " New " **]**

[Line 16 : *For* " half a mile southward " *read* " 3 cables northward " **]**

After line 16 *insert* :—

" Elf " beacon, a black pile structure 30 feet (9^m1) high, stands on Maraqqat 'Abdullah nearly 2 $\frac{3}{4}$ miles north-westward of Pile beacon ; " Can " beacon, a similar structure, stands on Maraqqat Ābādān about 3 $\frac{1}{4}$ miles northward of Pile beacon.

[Line 17 : *Delete and substitute* :—

" In 1954, New channel was dredged to a depth of 21 feet (6^m4). **]**

Lines 18-20 : *Delete and substitute* :—

The Western channel had, in 1948, a depth of 13 feet (4^m0). The depths in both channels are liable to change and are maintained by dredging but, in 1950, it was reported that the depth in the Rooka channel had decreased by about 2 feet (0^m6).

Line 22 : *For* " 1938 " *read* " 1943 "

Line 23 : *For* " 24 $\frac{1}{2}$ feet (7^m5) " *read* " 21 feet (6^m4) "

[Line 24 : *Delete and substitute* :—

New channel.—Lights.—Buoyage.—Shoal.—New channel, the main **]**

Line 27 : *Add* :—Shoaling was reported in 1952 on the western side of Khōr al Amaya about 6 $\frac{1}{2}$ miles north-north-westward of the charted

Page 239 continued.

position of Shatt al 'Arab light-vessel ; a depth of 26 feet (7^m9) was then obtained in that position.

【Lines 28 to 54 : *Delete and substitute :—*

The axis of the outer part of New channel is marked by two leading lights. The front light is exhibited, at an elevation of 18 feet (5^m5), from Middle New Channel front " C " beacon, situated about 2½ miles north-north-westward of the old Semaphore pile ; and the rear light, at an elevation of 55 feet (16^m8), from Middle New Channel rear " D " rear beacon, situated about 8½ cables north-westward of " C " the front light-beacon. These light-beacons in line bear 304°.

The inner part of New channel is marked by two pairs of light beacons, an inner pair and an outer pair. A light is exhibited, at an elevation of 18 feet (5^m5), from Outer New Channel front " B " beacon, situated about 2½ miles east-north-eastward of the old Semaphore pile ; and the rear light, at an elevation of 55 feet (16^m8), from Outer New Channel " A " beacon, situated about 8½ cables east-south-eastward of the " B " front light-beacon. These light-beacons are in line bearing 121°. A light is exhibited, at an elevation of 18 feet (5^m5), from Inner New Channel front beacon, situated about 2½ miles west-north-westward from Middle New Channel rear " D " beacon ; and the rear light, at an elevation of 55 feet (16^m8), from Inner New Channel rear beacon, situated about 8½ cables west-north-westward of Inner New Channel front beacon. These light-beacons are in line bearing 301°.

A light is exhibited, at an elevation of 18 feet (5^m5), from the Turning beacon situated on the north-western side of the channel at the junction of the axes of the outer and inner parts of New channel.

A can light-buoy, painted red and white in chequers, marked " KAFKA," and exhibiting a *white group flashing* light, showing *four flashes every ten seconds*, is moored on the south-western side of the approach to the New channel about 8 cables south-eastward of Outer New Channel rear " A " beacon.

A can light-buoy, painted red, marked " OUTER WESTERN," and exhibiting a *red group flashing* light, showing *two flashes every six seconds*, is moored on the north-eastern side of the entrance to New channel about 4 cables east-south-eastward of Outer New Channel rear " A " beacon. This buoy lies midway between the entrances to New and Western channels.】

Page 240.—【Lines 2-14 : *Delete.*】

Lines 15-17 : *Delete and substitute :—*

Western channel.—Lights.—【**Light-buoys.**—】The front light, of a pair of leading lights, is exhibited, at an elevation of 18 feet (5^m5), from a beacon, surmounted by a white triangle point up with a white lantern, about 3¼ miles north-north-westward of Pile beacon ; the rear light is exhibited, at an elevation of 28 feet (8^m5), from a four-pile structure surmounted by a black framework topmark and red lantern, about 6 cables north-westward. These lights in line bear 306° and lead through the Western channel.

【Outer Western light-buoy is described on page 239.

A conical light-buoy painted black and white in vertical stripes, marked " INNER WESTERN," and exhibiting a *white group flashing*

Page 240 continued.

light, showing *two flashes every six seconds*, is moored on the north-eastern side of the channel about $7\frac{1}{4}$ cables north-westward of the Turning light-beacon.]

Line 25 : *Delete* "Control vessel

2

20 "

Line 26 : *For* "3" *read* "5"

Page 241.—*After line 1 insert :—*

Tidal streams.—Tides.—The change of the tidal stream does not occur at low water, as the flood stream must attain sufficient strength to overcome the outflow of the river, which latter varies with the seasonal changes ; consequently, the time of the change of the tidal stream also varies.

During the river flood season, when there are small tides, the flood tidal stream is not felt at all, especially up river, and even in the vicinity of No. 9 light-beacon little or no flood stream is felt.

During the dry season, when a big tide follows a small one, the intervening ebb is not sufficiently strong to cause an ebb tidal stream. At Ābādān, during the river flood season, the flood tidal stream will not make for a tide of less than 8 or 9 feet (2^m4 or 2^m7) on the outer bar and, at the height of that season, the flood tidal stream will not make at all.

Under normal conditions the ebb tidal stream, in the vicinity of No. 9 light-beacon, commences about $1\frac{1}{2}$ hours after high water.

At Kasba the flood tidal stream commences about $1\frac{1}{2}$ hours before high water on the outer bar, and the ebb stream from about $2\frac{1}{2}$ to 3 hours after high water.

At Ābādān the flood tidal stream commences at about the time of high water on the outer bar, but the time of commencement of the ebb stream varies greatly.

At Basra, during the river flood season, the ebb tidal stream attains a rate of 4 knots and, during the dry season, a rate of from one to 2 knots.

Line 2 : *Delete* "Tidal streams.—Tides.—"

After line 45 insert :—

Day tides are highest in summer and night tides highest in winter.

The dry season commences in the autumn and continues until the spring when the snow inland begins to melt ; during the winter, however, there are frequent freshets caused by local rains.

The chart datum is based on the dry season and varies in different reaches of the river.

Silting occurs in the river during the flood season and is augmented by the outflow of the Karūn river which, due to its rapid rise and fall caused by local heavy rains, brings down large quantities of silt which are deposited on the Karūn bar and later carried downstream by the main river into the dredged channels ; it is estimated that 75 per cent of the silt is from the Karūn river and the remainder from the Tigris and Euphrates rivers ; heavy silting is reported to occur about every five years.

Line 49 : *After* "high water" *insert* " ; the effect is often felt before the arrival of the wind "

Line 50 : *After* "river," *insert* " the effect not being felt immediately,"

Page 242.—Lines 16-17: *For "Old semaphore tower" read "Pile beacon"*

[Line 21: *For "14" read "12"*]

[Line 22: *For "ten" read "twelve"*]

[Lines 24-25: *Delete and substitute:—*

"5 cables south-eastward of the Inner Bar Reach front light-beacon, near the junction of Inner Bar Reach and Fao Reach.]"

Line 27: *For "13" read "11"*

Line 28: *After "light" insert "every six seconds"*

[Lines 29-30: *Delete and substitute:—*

"about $7\frac{3}{4}$ cables south-eastward of the Outer Fao Reach rear light-beacon.]"

[Lines 31-35: *Delete and substitute:—*

A can light-buoy, No. 14, painted red and exhibiting a *red flashing* light, is moored on the south-western side of the channel about one mile westward of the Inner Bar Reach front light-beacon.]"

After line 35 insert:—

Tide-gauge.—Light.—A tide-gauge, from which a light is exhibited, is situated on the northern side of Inner Bar reach, about 2 miles north-westward of No. 9 light-beacon.

Line 38: *For "6" read " $4\frac{1}{2}$ "*

Lines 41-42: *Delete "by three" to "lights." and substitute:—*
"by leading lights erected on Maraqqat Ābādān."

Line 49: *For " $287\frac{1}{2}^{\circ}$ " read " 289° "*

Line 52: *For "17 feet (5^m2)" read "15 feet (4^m6)"*

Line 53: *For "3" read " $2\frac{1}{2}$ "*

Line 54: *For "middle" read "rear"*

Page 243.—Line 2: *For "47 feet (14^m3)" read "41 feet (12^m5)"*

Lines 3-6: *Delete and substitute:—*

"about 6 cables east-south-eastward of the front leading light-structure. These lights are in line bearing about 107° "

Line 8: *For "The front" read "Fao-Kasba reach.—The front"*

Lines 8, 14: *For "Fao reach" read "Fao-Kasba reach"*

Lines 21-24: *Delete.*

Line 25: *For "18" read "16"*

Line 26: *For "3 cables south-" read "7 cables west-"*

Line 29: *For "17" read "13"*

Line 31: *For " $2\frac{1}{2}$ " read "2"*

After line 32 insert:—

A conical light-buoy, painted black and exhibiting a *white flashing* light *every two seconds*, is moored about $4\frac{3}{4}$ cables north-north-westward of the flagstaff at Fao; a similar light-buoy, exhibiting a *white flashing* light *every four seconds*, is moored nearly $1\frac{1}{4}$ miles north-westward of the same flagstaff.

Line 33: *Delete "from" to "and"*

After line 37 insert:—

Floating pipe-line.—Dolphins.—Light.—Mooring buoys.—Three dolphins in a line are situated near the southern bank of the river, about 7 cables west-north-westward of the above tide-gauge. A floating pipe-line extends to the shore from the centre dolphin; a light is exhibited from this dolphin. A mooring buoy lies at each end of the line of dolphins. Vessels must not attempt to pass between the dolphins and the river bank.

Page 243 continued.

Line 38 : After " Fao.— " insert " **Radio.—** "

【After line 41 insert :

The upper limit of the harbour of Fao is an imaginary line drawn across the river 1,000 feet (304^m8) above **D** anchorage transit beacons in Kasba reach.】

Line 43 : Delete and substitute :—

" Two mooring buoys for the use of dredgers are moored off the northern "

【Lines 46-47 : Delete " half a mile above and " and substitute " 3½ miles above and half a mile "】

【Lines 48-50 : Delete and substitute :—

Traffic and tidal signals (see page 238) are shown from masts erected on the top of a large square building, 35 feet (10^m7) in height, situated in the northern part of Fao.】

Line 51 : After " hospital " insert " and a radio station "

After line 51 insert :—

【A steel, framework radio mast, 150 feet (45^m7) in height, is situated at the oil terminal about 1½ miles west-north-westward of Fao.】

Prohibited anchorage.—Anchorage is prohibited between the pecked lines on the chart drawn across the river from Fao flagstaff and the front leading light-structure nearly 2½ miles north-westward.

Page 244.—Line 19 : After " from each " insert " front beacon "

Line 40 : For " **Light-buoy** " read " **Buoyage** "

After line 45 insert :—

Dora light-buoy, painted in red and white stripes and exhibiting a *white group flashing* light showing two flashes every ten seconds, is moored nearly 2 miles north-north-westward of North House beacon. Deep draught vessels should pass eastward of this light-buoy.

Line 53 : Add :—In 1947, this house was obscured by trees.

Page 245.—After line 3 insert :—

A conical light-buoy, painted black and exhibiting a *white flashing* light every three seconds, is moored on the eastern side of the fairway about 5 cables north-eastward of Brick kiln light structure.

Line 19 : Delete " (Ma'awiya) "

Line 21 : For " red " read " in red and white vertical stripes, surmounted by a daymark similarly painted "

Lines 22-23 : Delete " 1½ " to " southward " and substitute " 1½ cables south-westward of the south-eastern extremity of Mu'āviyah spit which extends about 4 cables south-eastward "

Lines 25-29 : Delete and substitute :—

Deep draught vessels should pass eastward of the light-buoy, but light draught vessels may pass westward of it.

Line 41 : After " light " insert " every six seconds "

Line 42 : Add :—Deep-draught vessels should pass westward of this light-buoy.

Line 43 : After " **Lights.**— " insert " **Radio station.**— "

Line 51 : For " 1 and 4 " read " 3 and 7 "

Line 52 : Delete and substitute :—

" situated on the north-western side of the town of Ābādān, has a length of 1,480 feet (451^m1) and a depth alongside of 32 feet (9^m8) ; it is the main cargo quay."

Page 246.—*After line 16 insert :—*

There are six anchorage berths in Bāwardā reach, lettered A to F ; each berth is marked by a pair of transit marks at either end.

Lines 18-22 : *Delete and substitute :—*

No. 1 floating dock, with a lifting capacity of about 800 tons, from each end of which lights are exhibited, is moored off the south-western bank of the river, south-westward of No. 8 jetty.

No. 2 floating dock, from each corner of which lights are exhibited, is moored about one cable off the south-western side of the river south-westward of No. 5 jetty ; for details *see* Appendix I. A blue square flag will be displayed when this dock is being raised or lowered ; mariners are warned to reduce speed when passing the dock.

The framework mast of a coastal radio station, maintained by the Anglo-Persian Oil company, is situated about $6\frac{1}{2}$ cables north-north-eastward of No. 1 jetty.

Lines 32-33 : *Delete “ from ” to “ Company.” and substitute “ along-side the jetties and supplies are ample.”*

Lines 35-37 : *Delete and substitute :—*

There are seven 3-ton travelling cranes at No. 7 jetty, and one 3-ton derrick at No. 8 jetty.

Major repairs to hulls, machinery and electrical equipment can be undertaken and, in addition to the two floating docks referred to above, there are two slipways for small craft.

There are a number of powerful tugs, several of which are equipped with salvage appliances.

Line 39 : *After “ reach.— ” insert “ Submarine cables and pipelines.—Prohibited anchorages.— ”*

After line 44 insert :—

Anchorage is prohibited, due to the existence of submarine cables and a pipe-line, in an area extending across the river at the eastern end of Al Khast reach between a line joining the “ Slow ” notice boards at the western end of Ābādān reach, referred to above, and a line drawn in a 180° direction from a “ Prohibited anchorage ” notice board on the northern bank about $1\frac{1}{4}$ miles westward ; a submarine pipe-line, indicated by a pecked line on the chart, extends south-eastward across the river from the latter notice board. Two mooring buoys are laid on the north-western side of the river about half a mile south-westward of the “ Prohibited anchorage ” notice board on the south-eastern side of Hāji Salbuq.

Line 45 : *After “ light ” insert “ every three seconds ”*

Page 247.—*After line 11 insert :—*

Anchorage is prohibited in the vicinity of a submarine pipe-line which crosses the river close southward of No. 3 surveying mark, about $1\frac{3}{4}$ miles northward of Abu Dood island ; the shore ends of the pipe-line are marked by a notice board.

After line 24 insert :—

Four mooring buoys lie off the eastern bank of the river, just below the entrance to Hafar channel.

Line 32 : *After “ Khorramshahr.— ” insert “ Beacons.— ”*

Line 34 : *After “ 6^m4). ” insert :—*The largest vessel known to have entered the port had a draught of 17 feet (5^m2).

Page 247 continued.

Line 39 : *Add* :—The wharf and the wall adjacent to it are practically dry alongside at low water.

There are six wooden and one steel T-jetties, with depths of from 7 to 16 feet (2^m1 to 4^m9) alongside, on the southern bank opposite to Khorramshahr ; there is a hand-worked travelling crane, with a capacity of 5 tons, on one of the wooden jetties. There are some mooring buoys in the river.

About 3½ cables eastward of No. 5 jetty, and on the southern bank, are four sets of anchoring beacons lettered A to D in white ; the front beacons each consist of a railway iron surmounted by a triangle at an elevation of 15 feet (2^m6); the rear beacons are similar but surmounted by a St. Andrew's cross at an elevation of 23 feet (7^m0); the anchoring berths indicated by the alignment of these beacons are 1,000 feet (304^m8) long, 200 feet (61^m0) apart and marked by transit beacons at both ends.

Page 248.—Line 13 : *Add* :—Water is laid on to five of the jetties on the southern bank, but no water is available for vessels from the wharves on the northern bank.

Line 17 : *After* " Basra.— " *insert* " Wharves.— "

Lines 29-31 : *Delete and substitute* :—

Santab wharf, which is 3,280 feet (999^m7) in length, with six berths for ocean-going vessels, lies on the north-eastern side of the channel with its southern end about half a mile north-westward of the northern entrance point to Hafar channel. The wharf is equipped with three 12-ton mobile cranes for discharging from lighters to rail trucks.

Early in 1949, it was reported that silting had occurred alongside Santab wharf, and the depths there at that time varied from 15 to 22 feet (4^m6 to 6^m7).

On the eastern bank of Failiya creek, on the same side of the river at Santab wharf but nearly 4 cables upstream, there is a large wharf for lighters which, however, is not accessible at low water. The wharf is equipped with one 100-ton derrick and three mobile heavy cranes but, in 1949, these were reported to be out of use.

[Line 41 : *For* " white " *read* " green " **]**

Page 249.—Line 2 : *For* " conical " *read* " can "

Line 4 : *For* " Two " *read* " Several "

Line 6 : *Add* :—In April, 1948, the western mooring buoy was missing.

Line 7 : *After* " Basra.— " *insert* " Lights.— "

After line 18 *insert* :—

Red obstruction lights are exhibited from three radio masts, 98 feet (29^m9) high, situated about 1½ miles west-north-westward of the mouth of 'Ashār creek.

Line 45 : *After* " Ma'qil.— " *insert* " Lights.— "

After line 50 *insert* :—

Red obstruction lights are exhibited from a water tower, 60 feet (18^m3) high, situated about 3½ cables south-westward of the Port Directorate headquarters.

Line 52 : *Delete and substitute* :—

" is a lighter wharf and 12 deep-water wharves at Ma'qil ; the lighter wharf is the farthest upstream, the "

Line 54 : *Delete* " Nos. 1 " to " have "

Page 250.—Lines 2-6: *Delete* “depths” to “berths.” and *substitute* :—

Wharves Nos. 1-9 have a continuous frontage of 4,600 feet (1,402^m1) and depths of between 24 and 28 feet (7^m3 and 8^m5) alongside. They are served by 22 electric travelling cranes of from 2 to 8 tons capacity ; of these, one 8-ton crane serves wharves Nos. 4 and 5, and another 8-ton crane serves wharves Nos. 6 and 7.

Wharves Nos. 10-12, situated in the vicinity of Jubailah creek, have depths of from 16 to 21 feet (4^m9 to 6^m4) alongside ; No. 11 wharf, which is 650 feet (198^m1) in length and has a depth of 18 feet (5^m5) alongside, is equipped with a 70-ton fixed luffing crane.

After line 9 insert :—

Vessels of any length can lie with safety in the stream or alongside, but they must normally be under 600 feet (182^m9) in length to negotiate the two sharp turns in Rooka channel. Most of the berths alongside are designed to take vessels of up to 26 feet (7^m9) draught. If possible, vessels should berth on the ebb with bows upstream as the flood is frequently weak or absent altogether, in which case casting off with bows downstream may be difficult.

Lines 31-39 : *Delete and substitute* :—

Port facilities.—Stocks of coal are not normally maintained. Vessels requiring fuel oil usually bunker at Ābādān, but, by arrangement, can be bunkered in the stream from lighters ; there are several oil lighters available, varying from 50 to 500 tons capacity. Small craft can obtain fuel oil at Muftieh, about half a mile below Jubailah creek.

Fresh water is supplied from hydrants at the wharves or from water barges ; two of these craft are available, of 500-ton and 40-ton capacity, respectively. Boiler water can be taken direct from the river.

In addition to the cranes at the wharves, there is a 60-ton floating sheer-legs, a 25-ton self-propelled floating crane, a 15-ton crane vessel, and a buoyage vessel with an 8-ton crane.

There are two ocean-going tugs of about 1,200 H.P., and two smaller ones of 300 H.P.

The port engineering workshop is situated in the vicinity of Jubailah. There are no docking facilities for ocean-going vessels but minor repairs can be undertaken.

Three privately owned slipways are available, for the details of the largest of these *see* Appendix I.

Line 45 : *Delete and substitute* :—

Radio station.—**Radiobeacon.**—There is a radio station, and a radiobeacon, at Ma'qil. *See* page 17.

Page 251.—Line 12 : *Delete and substitute* :—

“of No. 8 wharf, Ma'qil, and an automatic tide-gauge farther north-westward.”

Line 14 : *After* “**Qurna.**—” *insert* “**Buoyage.**—”

Line 21 : *Delete* “is” to “cables” and *substitute* “and a light-buoy, painted in red and white horizontal bands and exhibiting a *red quick-flashing* light, are moored on this spit about 3 and 4 cables, respectively,”

Page 256.—Line 16 : *Delete and substitute* :—
Chart 1265.

Line 52 : *Delete* “ (Reuben’s) ”

Page 257.—Line 1 : *Delete and substitute* :—
Chart 1265.

Page 259.—Ābādān ; Columns Nos. (1)—(13) : *Delete the information and substitute* in Column No.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
“ 396·2	—	60·4	60·4	—	—	—	6·8	16	16	5,000	1924	Floating dock No. 2 ”

Page 265.—Table IV, column 1 and footnote : *For “ Q ” read “ T ”*

NEW AND ALTERED NAMES.

The following list gives new names and alterations in old names which will be adopted in all Hydrographic publications affected as opportunity occurs :—

New name.	Page of Pilot.	Obsolete name.
Adaime Hamer bin Yaber .		—
Adhalah, Hair al . . .	194	Adāla bank
Aish, Ras al . . .	172	Sawāmi', Ras as
Aitr, Rig bu . . .	174	Lovejoy shoal
'Alāj, Ras al . . .	182	'Arq, Ras al
'Alaq, Halat al . . .	174	Marshall islet
Amamah, Hair Abu . . .	193	Amama bank, Bu
Amim, Umm . . .	170	—
Aneiza village . . .	187	—
Annaywah, Fasht . . .	193	—
Arragie, Fasht Naiwat . . .	193	Athama patch, Bu
Athan shoal . . .	224	—
Atlassi shoal . . .	224	—
'Ayayat Ghasha. . .	174	Jennings reef
Aziziyah, Al . . .	204	—
Bakhut tower . . .	161	—
Bihaim, Hair al . . .	208	Abal Bihaim
Bikas, Kūh-i- . . .	230	—
Bul Khaipān, Halat . . .	184	Bul Khaifan, Halat
Burnaāt Maraqqat . . .	189	—
Camp island . . .	166	—
Chahru . . .	88	—
Dagal, Hair Abu . . .	208	—
Delpari . . .	149	—
Didabun . . .	227	Dedabuun
Essādiyāt, Khōr. . .	166	—
Fahad, Jesirah . . .	166	—
Failiya creek . . .	248	—
Faraijdat islets . . .	180	Fareijat islets
Fiyya . . .	170	Fiha, Al
Fuwairat . . .	189	Fuwaira
Gaffai, Jezirat . . .	181	Kafāi, Jezirat
Ghagha, Jazair . . .	181	Ghāra, Jazair
Gharab, Ras al . . .	165	Ghurab, Ras al
Gharibah, Fasht. . .	209	Retlawenna shoals
Ghasha, Jazīrat . . .	173	Rashid, Jazīrat
Ghasha, Niwat . . .	173	Crabbe shoal
Ghubba, Jazīrat al . . .	161	—
Girgiri, Kūh-i- . . .	227	—
Gohart kūh . . .	87	—
Hadaid, Fasht . . .	183	al 'Odaid, Fasht
Hagul, Abu . . .	193	Ashira, Al
Halj, Rig al . . .	171	Hajji, Rak al

NEW AND ALTERED NAMES—*continued.*

New name.	Page of Pilot.	Obsolete name.
Hraabi, Fasht el . . .	189	—
Hushdan kūh . . .	88	—
'Ish . . .	171	Al 'Isha
【Jahrā . . .	223	Jahra】
Jailaiya, Ras al . . .	210	Qaliya, Ras al
Jala'a, Ras al . . .	172	Ijla, Ras
Jamal, Fasht Umm al . . .	209	Hamail, Umm al
Jayjeh, Faskt Ar . . .	209	—
Jebajib bay . . .	165	—
Jubail, Al . . .	189	—
Jumail, Al . . .	192	—
Junanah . . .	170	Junaina, Al
Kareinein, Rig . . .	184	Kareinein, Rak
Khami, Kūh-i . . .	227	—
Khobar, Al . . .	204	—
Khorah, Hair . . .	208	Khorah
Khshainah, Hair . . .	209	Khshainah, Al
L'Thama, Hair Abu . . .	193	—
Mafjar, Al . . .	189	—
Mahayimat islands . . .	181	Miyamāt entin
Mahsum tower . . .	161	—
Marrawah . . .	170	—
Markhiyah village . . .	184	—
Mashairif, Ras . . .	179	Masheirib, Ras
Masummah, Rig . . .	178	—
Mena al Ahmadi . . .	217	Fahaihil
Middle Sitra buoy . . .	200	—
Milah tower . . .	161	—
Mubarras, Hālat al . . .	171	Mubarras, Hālat al
Nagā abu 'Anfūs . . .	182	—
Nahar tower . . .	163	Berij Nahar
Najwa islet . . .	206	Najwa reef
Qartas, Ras . . .	188	—
【Qushair, Fasht . . .	223	Oushair, Fasht】
Ramhan island . . .	166	—
Reedeim . . .	171	Reideim
Rodrigues shoal . . .	71	—
Rūs, Jabal Umm er . . .	204	Dhahrān, Jabal adh
Sa, Ras Umm . . .	189	—
Sa'afah, Fasht Abu . . .	208	Sa'afah, Abu
Sādiyāt, Ras . . .	166	—
Salāhah . . .	170	—
Salal, Umm es . . .	188	—
Sana'a, Bu . . .	173	Harrison bank
Sapt kūh . . .	84	—
Sarab, Ras . . .	179	—
Sarah, Hair as . . .	206	—
Sehtanj, Kūh . . .	149	—

